# ADMINISTRATION REPORTS

OF THE

# FOREST DEPARTMENT

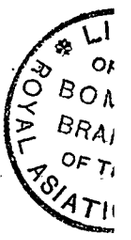
IN THE

# BOMBAY PRESIDENCY,

INCLUDING

# SIND

FOR THE YEAR 1893-94.

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# NORTHERN CIRCLE.

No. 2241 of 1894-95.

From

R. C. WROUGHTON, Esquire,

Deputy Conservator of Forests, Northern Circle;

To

The Honourable Mr. J. NUGENT,

Chief Secretary to Government, Revenue Department,

Bombay.

*Camp Wejalpur, Panch Mahâls District,*
*4th December 1894.*

Sir,

I have the honour to submit, herewith, the Forest Administration Report of the Northern Circle for the Forest year 1893-94, together with its prescribed subsidiary statements.

I have the honour to be,

Sir,

Your most obedient Servant,

R. C. WROUGHTON,

Deputy Conservator of Forests, Northern Circle.

Through the Commissioner, Northern Division.

B 1106—a N. C.

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# FOREST ADMINISTRATION REPORT

OF THE

# NORTHERN CIRCLE, BOMBAY PRESIDENCY,

FOR THE OFFICIAL YEAR 1893-94.

## INTRODUCTION.

The Circle, during practically the whole year under report, was administered by Mr. F. R. Dasai, Deputy Conservator of Forests, Messrs. Greatheed, Millett, Fisher and Wallinger being in charge of the several divisions and Mr. T. B. Fry, Deputy Conservator of Forests of the Working Plan Branch.

2. An area of 194 square miles was added to Reserved forest during the year. One hundred and eighty-seven square miles of this area were obtained by transfer of Protected forest, while the remaining 7 square miles represent the catchment area of the Tánsa Lake in East Thána, which was acquired by purchase during the year.

3. The Forest Survey Party of the Government of India continued work during the year in the Thána Divisions, the forests of which are being surveyed on a scale of 8″ = 1 mile.

4. The Working Plan branch continued their work in Thána, but were unable to get much ahead of immediate requirements in marking off compartments on the ground.

5. Protection, as judged by success in obtaining convictions in cases prosecuted, shows a slight falling off, but it is believed to be more in appearance than reality.

6. Protection from fire though not very successful was on the whole, especially in Thána, fairly satisfactory.

7. The financial results of the year constitute a record. The highest gross revenue ever collected, *viz.*, Rs. 7,60,954, was obtained, while at the same time expenditure remained low. The actual net revenue amounted to no less than Rs. 4,96,007.

## CHAPTER I.

### EXTENSION AND CONSTITUTION OF STATE FORESTS.

#### (i).—ALTERATION OF AREA.

8. The changes made in the forest area during the year were as follows:—

| Class of Forests. | Area on 1st July 1893. | Added during the year. | Excluded or transferred during the year. | Area on 30th June 1894. | Remarks. |
|---|---|---|---|---|---|
| | Sq.m. a. | Sq.m. a. | Sq.m. a. | Sq.m. a. | |
| Reserved ... ... | 953 184 | 194 254 | 4 337 | 1,143 101 | |
| Protected ... ... | 601 80 | ..... | 155 121 | 445 599 | |
| Leased ... ... | 678 320 | ..... | ..... , | 678 320 | |

9. In the Máhim (136½ square miles) and Dáhánu (17½ square miles) Ranges of the West Thána Division large areas of Protected forest were excluded by the Demarcation Officer. Of these areas, however, 57·7 square miles and 14·6 square miles were respectively selected for reservation and with 7·1 square miles added in East Thána (portion of Tánsa catchment area) and 114·6 square miles added in the Jhálod and Dohad Ranges of the Panch Mahál Division (representing Protected forest excluded two years ago and notified under Section 4) make up the 194¼ miles shown above as added to Reserved forest.

## (ii).—FOREST SETTLEMENTS.

10. The only special Forest Settlement Officer during the year was Mr. Orr, I. C. S., in Thána; in the other divisions the work was done by Assistant Collectors in addition to their own duties.

### *East and West Thána.*

11. Forest settlement has made steady progress during the year.

12. The demarcation and settlement of Máhim Range, West Thána, was approved and sanctioned by Government Resolution No. 4567, dated 24th May 1894, and that of 38 villages of Dáhánu Range (done by Mr. McIver) in the same division by Government Resolution No. 4619, dated 25th May 1894.

13. The demarcation of the remaining villages of the Dáhánu Range was completed by Mr. Orr during the year.

14. Mr. Orr, who was on leave when the year opened, on taking up work on 20th August 1893, set to work to arrange and classify the records so as to show exactly what remained to be done. Overdue settlement proceedings were then taken up in Bhiwndi (East Thána) and Bassein and Sálsette (West Thána) Ranges. A number of notifications of disforestment, for the most part representing not a real change of the forest area but a correction of errors in the records, were also published.

15. Lands acquired for forest in Bhiwndi, Váda and Kalyán (East Thána) were notified under Section 4.

16. Negotiations for the acquisition of land for forest, some of which had been in abeyance for 10 years, were resumed and brought to a definite conclusion.

17. Finally, under the orders of the Collector, the draughtsman and surveyors in the Forest Settlement Office, were employed, during the rains, in preparing maps of the settled Ranges, showing the forest boundaries on the scale of 2″ = 1 mile.

18. The settlement of the Jawhár State boundary in 14 villages of the Dáhánu Táluka by Mr. Dunsterville though not forest settlement must also be recorded here, for Mr. Dunsterville's establishment was drawn from the Forest Settlement Office by order of the Collector.

### *Panch Maháls.*

19. The draft notification under Section 19 in connection with the transfer to Reserved forest of the forest areas of Dohad and Jhálod, referred to in last year's report as having been submitted to Government for publication, was dealt with in Government Resolution No. 4909, dated 7th June 1894, which approved of the proposals made by which certain privileges already conceded were confirmed and certain others granted. The question of concessions of grazing and treatment of trees on waste lands outside forest was disposed of by the same resolution.

20. The following statement shows the position of forest demarcation and settlement in the Circle by detail of Ranges :—

| Number. | Division. | Tálukas in which Forest Settlement and Demarcation has been completed. | Tálukas in which Forest Settlement and Demarcation is still to be completed. | Remarks. |
|---|---|---|---|---|
| 1 | East Thána ... | Bhiwndi, Kalyán, Mokhá-da, Váda. | Murbád, Shaháp ur. | |
| 2 | West Thána ... | Bassein, Máhim, Sálsette, part of Dáhánu. | Part of Dáhánu, Umbargaon. | |
| 3 | Surat ... ... | Mándvi, Balsár, Párdi, Chikhli, Bárdoli. | ..... | |
| 4 | Panch Maháls ... | Godhra, Kálol, Hálol, Dohad, Jhálod. | ..... | |

21. The details of land acquired by purchase during the year were as follows:—

| Number. | Division. | Area acquired. | Price paid. | Rate per Acre. | Remarks. |
|---|---|---|---|---|---|
| | | A. g. | Rs. a. p. | Rs. a. p. | |
| 1 | West Thána ... | 0 10¾ | 2 0 0 | 7 7 0 | |

22. There was no land obtained by exchange.

23. The following statement shows the cost of Forest Settlement Officers and their establishments for the several divisions:—

| No. | Division. | Forest Settlement Officers. | | Office Establishments. | | Contingencies. | Total. |
|---|---|---|---|---|---|---|---|
| | | Pay. | Travelling Allowance. | Pay. | Travelling Allowance. | | |
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| 1 | East Thána ... ... | 9,220 0 0 | 1,817 11 0 | 5,265 5 2 | 1,249 4 3 | 511 13 8 | 18,064 2 1 |
| 2 | West Thána ... ... | | | | | | |
| 3 | Surat ... ... ... | ..... | ..... | 1,285 1 6 | ..... | ..... | 1,285 1 6 |
| 4 | Panch Mahals .. | ..... | ..... | ..... | ..... | 44 10 9 | 44 10 9 |
| | Total ... | 9,220 0 0 | 1,817 11 0 | 6,550 6 8 | 1,249 4 3 | 556 8 5 | 19,393 14 4 |

24. The expenditure incurred upon the formation and constitution of Reserved and Protected forests during the year has amounted to Rs. 22,217-14-4:—

| | Rs. a. p. |
|---|---|
| 1. Salaries and travelling allowances of Forest Settlement Officers not charged to forests ... ... | 11,037 11 0 |
| 2. Salaries and travelling allowances of establishments employed under Forest Settlement Officers and charged in forest accounts and the contingent expenditure of the latter ... ... ... | 8,356 3 4 |
| 3. Demarcation of forest boundaries upon the ground by the construction of special forest boundary marks ... | 2,822 0 0 |
| 4. Compensation for land and rights ... ... | 2 0 0 |
| Total ... | 22,217 14 4 |

25. The work effected during the year by the expenditure detailed above comprises:—

(*a*) The settlement of 252 square miles at a cost of Rs. 77 per square mile.

(*b*) The demarcation of 139½ miles of forest boundary at Rs. 20-4-0 per mile.

(*c*) The purchase of 10¾ gunthas of land for forest reservation at Rs. 7-7-0 per acre.

26. The following statement shows the area to be examined, demarcated and settled in the Northern Circle:—

| No. | Division. | Area settled. | Area unsettled. |
|---|---|---|---|
| | | Sq. m. a. | Sq. m. a. |
| 1 | East Thána ... ... ... ... | 298 12 | 386 389 |
| 2 | West Thána ... ... ... ... | 247 450 | 254 242 |
| 3 | Surat ... ... ... ... | 68 477 | ..... |
| 4 | Dángs ... ... ... ... | 678 320 | ..... |
| 5 | Panch Mahals ... ... ... ... | 333 410 | ..... |
| | Total ... | 1,626 389 | 640 631 |

## (iii).—DEMARCATION.

27. The following statement shows the clearance of boundary lines and the erection of forest boundary marks performed during the year :—

| No. | Division. | Length of Boundary demarcated. | Number of Cairns erected, | | Amount spent. | Rate per Mile. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | | Large. | Small. | | | |
| | | | | | Rs. a. p. | Rs. | |
| 1 | East Thána ... | 10¼ | 68 | 105 | 125 0 0 | ... | |
| 2 | West Thána ... | 41½ | 446 | 13 | 276 0 0 | ... | Besides 1,440 stones planted. |
| 3 | Surat ... | 17¼ | 235 | 121 | *2,822 0 0 | ... | * Include Rs. 1,333 on account of Dángs. |
| 4 | Panch Mahálś ... | 70½ | 3 | 74 | 515 0 0 | ... | Besides 1,447 tin plates were used as indicators of forest boundary. |
| | Total, 1893-94 ... | 139½ | 752 | 313 | 3,738 0 0 | 26¾ | |
| | Total, 1892-93 ... | 181 | 2,901 | 1,698 | 5,527 4 4 | 30½ | |

## (iv).—SURVEYS.

28. Last year details of work done by the Forest Survey Party of the Government of India with cost, rates, &c., were given, but these were for the Survey and not for the Forest year.

29. The Superintendent writes that 51·21 square miles of detailed 8″ topographical survey were completed up to 30th June 1894. The amount debited for forest survey is Rs. 11,727-2-3. This would give a cost rate of Rs. 229 square miles, but this cannot be correct. In fact the difference in the two years is a bar to the record here of any useful figures.

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# CHAPTER II.

## MANAGEMENT OF STATE FORESTS.

### I.—REGULATION AND MANAGEMENT.

#### (*a*),—Working Plans and their Control.

30. The Working Plans Division was in charge of Mr. T. B. Fry, Deputy Conservator of Forests, during most of the year under report. Mr. Millett, Deputy Conservator of Forests, holding charge in addition to his own duties from 5th August 1893 to 4th November 1893 during Mr. Fry's absence on privilege leave and again from 10th May 1894 to the close of the year on the transfer of Mr. Fry to the Southern Circle.

31. Mr. Fry, who was Working Plans Officer for the old Northern Circle, continued to be Working Plans Officer for the two Circles after their separation and up to 1st January 1893. From that date, under Government Resolution No. 10144, dated 28th December 1892, he became Working Plans Officer, Northern Circle. As, however, the Working Plans Branch of the Central Circle had not been organized, Mr. Fry's head-quarters were fixed at Poona and, under Government Resolution No. 8106, dated 4th November 1893, his services as well as those of his establishment were lent to the Central Circle up to the Christmas vaca-

tion. Nearly the whole of the working season, thus curtailed, was employed in laying out the coupes of the coming year, only the last few weeks being available for marking off coupes in advance in the Bassein Range.

32. There are theoretically 284 blocks in the two Thána Divisions, but for various reasons 11 of these are not to be worked in 1894-95. Consequently 273 coupes were laid out during the season ready for working in the coming season and 90 coupes were laid out in advance in a less detailed way (*i. e.*, with small cairns at the principal angles only) in 13 blocks of Bhiwndi.

33. The following statement shows the extent to which the paper Working Plan has been marked out and realized on the ground up to date:—

| Name of Range. | Number of Blocks. | Total Number of Coupes. | Number of Coupes marked out. | Number of Coupes exploited. | Number of Coupes to be worked in 1894-95. | Number of Coupes marked for future exploitation. | Number of Blocks in which Coupes for future exploitation are laid out. | Number of Coupes yet to be marked out. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| *East Thána Division.* | | | | | | | | | |
| Bhiwndi ... ... .. | 20 | 800 | 198 | 138 | 20 | 40 | 13 | 602 | |
| Kalyán ... ... ... | 16 | 640 | 119 | 103 | 16 | ... | ... | 521 | |
| Murbád ... ... ... | 20 | 800 | 104 | 89 | 15 | ... | ... | 696 | |
| Shaháput and Khardi ... | 53 | 2,120 | 259 | 211 | 48 | ... | ... | 1,861 | |
| Mokháda ... ... ... | 12 | 480 | 60 | 49 | 11 | ... | ... | 420 | |
| Váda ... ... ... | 34 | 1,360 | 199 | 147 | 33 | 19 | 6 | 1,161 | |
| *West Thána Division.* | | | | | | | | | |
| Sálsette ... ... ... | 10 | 400 | 63 | 53 | 10 | ... | ... | 337 | |
| Bassein ... ... ... | 23 | 920 | 281 | 165 | 24 | 92 | 16 | 639 | |
| Máhim ... ... ... | 35 | 1,400 | 256 | 219 | 35 | 2 | 1 | 1,144 | |
| Dáhánu ... ... ... | 39 | 1,560 | 279 | 240 | 39 | ... | ... | 1,281 | |
| Umbargaon ... ... | 18 | 720 | 121 | 103 | 18 | ... | ... | 599 | |
| Talasri Mokháda ... | 4 | 160 | 19 | 15 | 4 | ... | ... | 141 | |
| | 284 | 11,360 | 1,958 | 1,532 | 273 | 153 | 36 | 9,402 | |

34. It will be seen that the work to date has been from hand to mouth and that only some 150 coupes have been marked in advance out of 9,402 requiring to be so marked. This is no doubt due to the short working season available so long as coupes had also to be marked in the Dekkhan Divisions. But it must also be remembered that under any circumstances the incomplete state of settlement and the want of sanction to the paper scheme would have prevented much more rapid progress. Forest settlement is, however, now complete in 6 Ranges and the work of laying out advance coupes can now be pushed on.

35. The following statement shows the employment of time by the Working Plans surveyors:—

| Percentage of time employed in | 1892-93. | 1893-94. |
|---|---|---|
| Working days (field and office work) ... | 51 | 64 |
| Sundays, holidays and leave ... | 14 | 23 |
| Travelling ... ... ... | 23 | 10 |
| Illness and delays ... ... | 12 | 3 |

The increase in the proportion of working days and the decrease under the last two heads is most satisfactory.

36. The following is a statement of the work performed by the Working Plans Officer and his establishment during 1893-94;—

| No. | Range. | Total Forest area. | Number of Blocks per Range. | Number of Compartments actually laid out in 1893-94. | Average area of Compartments actually laid out. | Remarks. |
|---|---|---|---|---|---|---|
| | *East Thána.* | Acres. | | | Acres. | |
| 1 | Kalyán ... ... ... | 35,037 | 16 | 16 | 46 | |
| 2 | Murbád ... ... | 90,295 | 20 | 15 | 49 | |
| 3 | Bhiwndi ... ... | 47,868 | 20 | 20 | 48 | |
| 4 | Mokháda ... ... | 35,891 | 12 | 11 | 55 | |
| 5 | Khardi ... ... | 157,143 | 53 | 48 | 60 | |
| 6 | Shaháp ur ... ... | | | | | |
| 7 | Váda ... ... | 76,219 | 34 | 33 | 54 | |
| | Total ... | 442,453 | 155 | 143 | 54 | |
| | *Total during 1892-93 ... | 339,545 | 124 | 132 | 53 | *Excluding Váda Range and including Talasri Mahál of the Mokháda Range. |
| | *West Thána.* | | | | | |
| 1 | Sálsette ... ... | 15,393 | 10 | 10 | 38 | |
| 2 | Basseiu ... ... | 54,030 | 23 | 24 | 51 | |
| 3 | Máhim ... ... | 74,108 | 35 | 35 | 51 | |
| 4 | Dáhánu ... ... | 172,641 | 61 | 61 | 56 | |
| 5 | Umbargaon ... ... | | | | | |
| | Total ... | 316,171 | 129 | 130 | 49 | †Including Váda Range and excluding the Talasri Mahál. |
| | †Total during 1892-93 ... | 349,094 | 158 | 185 | 50 | |

37. It will be seen from the above that the area marked for exploitation falls short of the theoretical $\frac{1}{40}$ of the "Forest Area." In fact after deducting the unworkable or climatic forest the area which should theoretically come under the axe in the two Thána Divisions is just under 19,000 acres, whereas the actual area laid out for exploitation is a trifle under 14,400. This is due to the fact that much of the "Forest Area" is only provisional and will certainly in part be disforested ultimately, consequently the yield must, for safety's sake, be kept considerably below the paper possibility.

38. The expenditure on these operations is exhibited below, from which it will be seen that the cost per acre of laying out the compartments of the year under report is exactly the same as that of the preceding year :—

| No. | Range. | Number of Compartments. | Defined by | | Aggregate area of Compartments. | Cost. | Average cost per Compartment. | Average cost per Acre. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | | | Cairns. | Stones. | | | | | |
| | *East Thána.* | | | | A. g. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| 1 | Kalyán ... ... ... | 16 | 51 | 1,562 | 737. 20 | 73 6 0 | 4 9 4 | 0 1 7 | |
| 2 | Bhiwndi ... ... | 20 | 16 | 1,229 | 962 10 | 65 11 0 | 3 4 4 | 0 1 1 | |
| 3 | Murbád... ... ... | 15 | 46 | 1,450 | 735 10 | 70 9 0 | 4 11 0 | 0 1 6 | |
| 4 | Shaháp ur ... ... | 48 | 160 | 4,428 | 2,885 2 | 222 8 0 | 4 10 2 | 0 1 3 | |
| 5 | Khardi ... ... ... | | | | | | | | |
| 6 | Mokháda ... ... | 11 | 33 | 913 | 625 0 | 40 11 6 | 3 11 3 | 0 1 0 | |
| 7 | Váda ... ... ... | 33 | 104 | 2,746 | 1,781 20 | 178 7 3 | 5 6 6 | 0 1 7 | |
| | Total ... | 143 | 410 | 12,328 | 7,726 22 | 651 4 9 | 4 8 10 | 0 1 4 | |
| | *West Thána.* | | | | | | | | |
| 1 | Sálsette... ... ... | 10 | 28 | 803 | 384 20 | 45 7 0 | 4 8 8 | 0 1 10 | |
| 2 | Bassein... ... ... | 24 | 23 | 1,875 | 1,164 20 | 96 0 0 | 4 0 0 | 0 1 4 | |
| 3 | Máhim ... ... ... | 35 | 138 | 2,443 | 1,782 20 | 157 14 0 | 4 8 0 | 0 1 5 | |
| 4 | Dáhánu... ... ... | 48 | 141 | 3,762 | 2,731 15 | 221 9 0 | 4 9 10 | 0 1 4 | |
| 5 | Umbargaon ... ... | 13 | 42 | 1,126 | 590 30 | 55 9 6 | 4 4 5 | 0 1 6 | |
| | Total ... | 130 | 372 | 10,012 | 6,653 25 | 576 7 6 | 4 6 11 | 0 1 4 | |
| | Grand Total ... | 273 | 782 | 22,340 | 14,380 7 | 1,227 12 3 | 4 8 0 | 0 1 4 | |
| | Total during 1892-93 ... | 317 | 991 | 26,539 | 17,026 30 | 1,403 8 0 | 4 6 10 | 0 1 4 | |

## II.—WORKING OF THE YEAR.

### (a).—Communications and Buildings.

39. The amount departmentally spent on works under this head was Rs. 7,327-8-0.

The details of this expenditure are shown below:—

| Description of Work. | East Thá'na. | | West Thá'na. | | Surat. | | Panch Mahá'ls. | | Total. |
|---|---|---|---|---|---|---|---|---|---|
| | No. | Cost. | No. | Cost. | No. | Cost. | No. | Cost. | |
| | | Rs. a. p. | | Rs. a. p. | | Rs. a. p. | | Rs. a. p. | Rs. a. p. |
| 1. Bungalows— | | | | | | | | | |
| New work .. | ... | ..... | ... | ..... | 3 | 1,694 0 0 | 1 | 367 10 1 | 2,061 10 1 |
| Repairs ... | 1 | 301 10 0 | 1 | 31 14 0 | 3 | 250 0 0 | 2 | 462 5 0 | 1,045 13 0 |
| 2. Roads— | | | | | Miles. | | | | |
| New work ... | ... | ..... | ... | ..... | 10 | 822 5 6 | ... | ..... | 822 5 6 |
| | | | | | Miles. | | | | |
| Repairs ... | ... | ..... | ... | ..... | 72 | 865 12 8 | ... | ..... | 865 12 8 |
| 3. Rest-houses— | | | | | | | | | |
| New work ... | ... | ..... | ... | ..... | 1 | 430 0 0 | ... | ..... | 430 0 0 |
| Repairs ... | ... | ..... | ... | ..... | ... | ..... | ... | ..... | ..... |
| 4. Guards' huts— | | | | | | | | | |
| Forest posts ... | ... | ..... | ... | ..... | ... | ..... | ... | ..... | ..... |
| New work .. | 1 | 7 0 0 | ... | ..... | 3 | 77 0 0 | ... | ..... | 84 0 0 |
| Repairs ... | 144 | 570 15 0 | 167 | 412 8 0 | 3 | 5 1 11 | 1 | 22 0 0 | 1,020 8 11 |
| 5. Cattle-pounds— | | | | | | | | | |
| New work ... | 8 | 118 9 6 | 12 | 225 4 9 | ... | ..... | ... | ..... | 343 14 3 |
| Repairs ... | ... | ..... | ... | ..... | ... | ..... | ... | ..... | ..... |
| 6. Other works— | | | | | | | | | |
| New work ... | ... | ..... | ... | ..... | 2 | 37 14 4 | 1 | 620 9 3 | 658 7 7 |
| Repairs .. | ... | ..... | ... | ..... | 1 | 5 0 0 | ... | ..... | 5 0 0 |
| Total ... | ... | 998 2 6 | ... | 669 10 9 | ... | 4,187 2 5 | ... | 1,472 8 4 | 7,327 8 0 |

40. The following is a list of works carried out during the year through the agency of the Public Works Department:—

| No. | Name of Work. | Amount of Expenditure. |
|---|---|---|
| | Originals. | Rs. a. p. |
| | *East Thána.* | |
| 1 | Additions and alterations to the Forest Depôt house at Vásind ... | 190 14 9 |
| 2 | Do. do. do. at A'tgaon... | 190 15 8 |
| 3 | Do. do. to the Forest Ranger's office and residence at Khardi. | 1,314 15 5 |
| | *West Thána.* | |
| 1 | Additions and alterations to the Range Forest Office at Kelve Máhim. ... ... ... ... ... | 18 7 7 |
| 2 | Repairing the ground floor of the Range Forest Office at Dáhánu. | 20 0 0 |
| 3 | Constructing a Forest Depôt house at Vangaon ... ... | 1,228 7 10 |
| 4 | Additions and alterations to the Range Forest Office at Bassein. | 101 8 0 |
| | Total ... | 3,065 5 3 |
| | Repairs. | |
| | *East Thána.* | |
| 1 | Repairs to the Range Forest Office at Murbád ... ... | 24 14 9 |
| 2 | Do. do. at Khardi ... ... | 45 0 0 |
| 3 | Do. do. at Wáda ... ... | 19 15 10 |
| 4 | Do. do. at Bhiwndi ... ... | 25 0 0 |
| 5 | Do. Forest Depôt house at A'tgaon ... ... | 14 15 9 |
| 6 | Do. do. at Kássára ... ... | 14 15 0 |
| 7 | Do. do. at Vásind ... ... | 14 15 3 |
| 8 | Do. do. at Vángni ... ... | 14 14 7 |

| No. | Name of Work. | Amount of Expenditure. |
|---|---|---|
| | REPAIRS—*continued.* | |
| | *West Thána.* | Rs. a. p. |
| 1 | Repairs to the Range Forest Office at Bassein ... ... | 24 6 0 |
| 2 | Do. do. at Thána ... ... | 19 5 2 |
| 3 | Do. do. at Kelve Máhim ... | 24 14 7 |
| 4 | Do. Forest Depôt house at Manor ... ... | 14 14 8 |
| 5 | Do. do. at Sawta ... ... | 14 15 6 |
| 6 | Do. do. at Pálghar ... ... | 13 14 6 |
| 7 | Do. do. at Sanján ... ... | 14 15 9 |
| | | 302 1 4 |
| | Total ... | 3,367 6 7 |

## (*b*).—PROTECTION OF FORESTS FROM INJURY.

### (1)—*General Protection and Breaches of Forest Law.*

#### (*a*).—*General Protection.*

41. The protective establishment has remained unchanged during the year.

42. Reference was made last year (paragraph 62) to the weakness of the establishment for the work required of it. Nearly all the Divisional Forest Officers record a similar complaint this year and for the most part are supported by the Collectors as may be seen from the remarks recorded by the latter, in forwarding the divisional reports, which are given at length in the concluding chapter of this report (para. 121)

43. In the Dángs especially it is found most difficult to obtain recruits to fill vacancies as the pay is not considered sufficient to out-balance the deadly climate and the isolation from families and caste.

44. The other remarks recorded under this head last year hold good.

#### (*b*).—*Breaches of Forest Law.*

45. The following is a comparative statement of the cases tried before Magistrates for breaches of the Forest law during the year under report and the preceding year :—

| No. | Division. | 1892-93. | | 1893-94. | | Percentage of failures. | |
|---|---|---|---|---|---|---|---|
| | | Prosecutions. | Acquittals. | Prosecutions. | Acquittals. | 1892-93. | 1893-94. |
| 1 | East Thána ... ... | 110 | 43 | 152 | 55 | 39 | 36·1 |
| 2 | West Thána ... ... | 108 | 17 | 62 | 31 | 15·7 | 50· |
| 3 | Surat ... ... ... | 3 | ... | 2 | ... | ... | ... |
| 4 | Panch Mahálś .... ... | 13 | 2 | 14 | 3 | 15·4 | 21·4 |
| | Total ... | 234 | 62 | 230 | 89 | 26·5 | 38·7 |

46. The number of cases, it will be seen, is almost the same as last year (though last year's figures were for 15 months), but the increased proportion of acquittals is to be regretted. The Divisional Forest Officer, West Thána, attempts an explanation which, however, is not accepted by the Collector. It must be remembered that the total number of cases is very small to give a

steady average and a very few actual extra acquittals make the proportional increase look enormous. I think that this is the real explanation of the fluctuation. This increase, however, coming in continuation of that reported last year, is unfortunate.

47. In the following statement comparison is made between the numbers of cases in which prosecutions were instituted for the two years 1892-93 and 1893-94 under the four different heads of crime, as prescribed by the Forest Department Code :—

| No. | Division. | Injury to Forest by Fire. | | Unauthorized felling or appropriation of Wood and minor Forest Produce. | | Grazing without Permission or in Tracts in which Grazing is prohibited. | | Other offences. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| 1 | East Thána ... | 7 | 4 | 125 | 151 | 2 | 5 | 2 | 9 | 136 | 169 |
| 2 | West Thána ... | 2 | 2 | 97 | 60 | 5 | 1 | 8 | 9 | 112 | 72 |
| 3 | Surat ... ... | ... | ... | 2 | 1 | ... | 1 | 1 | ... | 3 | 2 |
| 4 | Panch Mahals ... | ... | 1 | 11 | 14 | 1 | 2 | ... | ... | 12 | 17 |
| | Total ... | 9 | 7 | 235 | 226 | 8 | 9 | 11 | 18 | 263 | 260 |

48. The following table exhibits the nature and character of the offences tried by Magistrates during the year under report :—

| No. | Division. | Offences relating to the misappropriation of | | | | Total. |
|---|---|---|---|---|---|---|
| | | (a) Timber. | (b) Firewood. | (c) Minor Forest Produce. | (d) Other offences. | |
| 1 | East Thána ... ... | 81 | 43 | 22 | 6 | 152 |
| 2 | West Thána ... ... | 37 | 15 | 3 | 7 | 62 |
| 3 | Surat ... ... ... | 1 | ... | ... | 1 | 2 |
| 4 | Panch Mahals ... ... | 9 | 2 | ... | 3 | 14 |
| | Total ... | 128 | 60 | 25 | 17 | 230 |

49. The classification of undetected cases is given below :—

| No. | Division. | Injury to Forest by Fire. | | Unauthorized felling or appropriation of Wood and minor Forest Produce. | | Grazing without Permission or in Tracts in which Grazing is prohibited. | | Other offences. | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| 1 | East Thána ... | 152 | 234 | 270 | 460 | ... | ... | ... | ... | 422 | 694 |
| 2 | West Thána ... | 177 | 126 | 128 | 119 | ... | ... | 29 | 4 | 334 | 249 |
| 3 | Surat ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4 | Panch Mahals ... | ... | ... | 26 | 27 | ... | ... | ... | ... | 26 | 27 |
| | Total ... | 329 | 360 | 424 | 606 | ... | ... | 29 | 4 | 782 | 970 |

50. The following statement shows the number of cases decided by Revenue officers under Section 43 of the Land Revenue Code, in the Thána District, as compared with that of the previous year :—

| Number. | Divisions. | 1892-93. | | | | | 1893-94. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Number of Cases. | Value of Forest Produce. | Acquittals. | Convictions. | Amount of Fines. | Number of Cases. | Value of Forest Produce. | Acquittals. | Convictions. | Amount of Fines. |
| | | | Rs. a. p. | | | Rs. a. p. | | | | | Rs. a. p. |
| 1 | East Thána ... ... | 12 | 49 7 0 | ... | 12 | 50 1 0 | 10 | 50 3 0 | ... | 10 | 50 0 6 |
| 2 | West Thána ... ... | 4 | 159 15 6 | ... | 4 | 159 15 6 | 11 | 432 8 0 | ... | 11 | 598 5 0 |
| | Total ... | 16 | 209 6 6 | ... | 16 | 210 0 6 | 21 | 482 11 0 | ... | 21 | 648 5 6 |

51. A comparative statement showing the number of cases compromised under Section 67 of the Indian Forest Act and those taken into Court, is given below :—

| No. | Divisions. | Taken into Court. | | Compounded under Section 67 of the Forest Act. | | Total Number of Cases. | |
|---|---|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| 1 | East Thána ... ... ... ... | 153 | 212 | 173 | 87 | 326 | 299 |
| 2 | West Thána ... ... ... ... | 121 | 84 | 122 | 77 | 243 | 161 |
| 3 | Surat ... ... ... ... ... | 3 | 2 | 17 | 7 | 20 | 9 |
| 4 | Panch Mahálś ... .... ... ... | 14 | 18 | 107 | 73 | 121 | 91 |
| | Total ... | 291 | 316 | 419 | 244 | 710 | 560 |

52. The classification of the cases compounded during the year is as follows :—

| Number. | Division. | Offences relating to the misappropriation of. | | | | Total. |
|---|---|---|---|---|---|---|
| | | (a) Timber. | (b) Firewood. | (c) Minor Forest Produce. | (d) Other offences. | |
| 1 | East Thána... ... ... ... | 39 | 14 | 19 | 15 | 87 |
| 2 | West Thána ... ... ... | 50 | ... | 26 | 1 | 77 |
| 3 | Surat ... ... ... ... ... | 4 | 3 | ... | ... | 7 |
| 4 | Panch Mahálś ... ... ... | 54 | 14 | ... | 5 | 73 |
| | Total ... | 147 | 31 | 45 | 21 | 244 |

53. In 46 cases the offence was treated as trivial and the offenders were merely warned; the number of similar cases last year was 72.

54. The following statement gives the details in respect of money paid as compensation for forest offences compounded under Section 67 of the Forest Act during 1893-94 :—

| Number. | Division. | Number of Cases compounded and in which Compensation has been accepted. | Amount of Compensation. | Remarks. |
|---|---|---|---|---|
| | | | Rs. a. p. | |
| 1 | East Thána... ... ... ... | 87 | 283 5 3 | |
| 2 | West Thána ... ... ... | 77 | 313 6 6 | Rs. 93 were not recovered at the end of the year. |
| 3 | Surat ... .... ... ... | 7 | 8 7 6 | |
| 4 | Panch Mahálś ... ... ... | 73 | 153 0 0 | |
| | Total ... | 244 | 758 3 3 | |

55. The 244 cases of compounded offences are classified according to the amount of the fine paid in the following statement:—

| No. | Division. | No. of Cases in which Compensation was fixed at Rupees | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 30 to 39. | 40 to 49. | 80 | |
| 1 | East Thána ... | 51 | 10 | 1 | 4 | 3 | 5 | 2 | ... | 1 | 2 | 2 | ... | 2 | ... | 2 | ... | ... | ... | ... | ... | 1 | ... | ... | 1 | 87 |
| 2 | West Thána ... | 34 | 17 | 3 | 5 | 3 | 3 | 1 | 1 | ... | ... | ... | 1 | 1 | ... | ... | 3 | ... | ... | 1 | ... | 2 | ... | 2 | ... | 77 |
| 3 | Surat ... ... | 3 | 3 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 7 |
| 4 | Panch Mahals ... | 42 | 10 | 7 | 3 | 3 | 1 | 3 | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | 1 | ... | ... | 73 |
| | Total ... | 130 | 40 | 12 | 12 | 9 | 9 | 6 | 1 | 1 | 2 | 3 | 1 | 3 | ... | 2 | 3 | ... | ... | 3 | ... | 3 | 1 | 2 | 1 | 244 |

56. The information given in the following statement is in accordance with paragraph 11 of Government Resolution No. 1899, dated 15th March 1891:—

| No. | Division. | Number of complaints disposed of under Section 67. | Number of cases in which Compensation has been accepted. | Number of appeals against the proceedings. | Manner in which the appeals have been disposed of. | Remarks. |
|---|---|---|---|---|---|---|
| 1 | East Thána ... | 87 | 87 | ... | ... | |
| 2 | West Thána ... | 114 | 77 | ... | ... | In 37 cases offenders were let off with a warning. |
| 3 | Surat ... | 10 | 7 | ... | ... | Do. 3 do. do. |
| 4 | Panch Mahals ... | 79 | 73 | ... | ... | Do. 6 do. do. |
| | Total ... | 290 | 244 | ... | ... | 46 |

(*b*) (*2*)—*Protection from Fire.*

57. The results of the year's fire protection, as compared with those of the year 1892-93, are shown below:—

| Number. | Division. | Forest Area placed under protection against Fire. | | Acreage burned. | | Percentage burned. | |
|---|---|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| | | Acre. | Acres. | Acres. | Acres. | Acres. | Acres. |
| 1 | East Thána ... | 451,956 | 451,907 | 18,515 | 17,700 | 4·09 | 3·9 |
| 2 | West Thána ... | 358,719 | 247,344 | 5,462 | 6,680 | 1·5 | 2·7 |
| 3 | Surat ... ... | 478,141 | 478,237 | 434,990 | 443,747 | 90·9 | 92·8 |
| 4 | Panch Mahals ... | 213,575 | 217,530 | 3,944 | 17,276 | 1·8 | 7·9 |
| | Total ... | 1,502,391 | 1,391,018 | 462,911 | 485,403 | 30·7 | 34·9 |

58. The areas recorded as burnt are much the same as those of last year, except in the Panch Mahals, where four times last year's area is reported to have been burnt in 1893-94. Mr. Fisher attributes this to more correct reporting of areas burnt. He writes: "The above figures are no doubt misleading and should be taken to indicate the submission of more complete reports of the areas burnt. There is no doubt that last year the area burnt was much under-estimated and often no reports at all were submitted. This matter having received special attention the system of reporting was much better carried out. Probably no greater area was burnt this year than last." The Collector, it will be seen (para. 121), does not attach much weight to this recorded opinion. I confess, I think, the reason advanced by Mr. Fisher is the true one for a large part of the difference, for there is no reason why the area burnt should have so largely increased, especially when, as stated by Mr. Fisher, his attention was specially directed to fire protection.

59. The Thána system of fire protection was in force during the year in Surat and the Panch Mahals.

60. It is satisfactory to be able to record that there is almost unanimous testimony to the general good-will of the villagers in assisting to extinguish fires.

61. The following is a statement showing the expenditure on burning fire lines and paying rewards to villagers, &c.:—

| No. | Division. | Expenditure. | | Remarks. |
|---|---|---|---|---|
| | | 1892-93. | 1893-94. | |
| | | Rs. | Rs. | |
| 1 | East Thána ... ... | 1,576 | 1,520 | |
| 2 | West Thána ... ... | 2,029 | 2,520 | |
| 3 | Surat ... ... | 186 | 380 | |
| 4 | Panch Mahals ... ... | ... | 69 | |
| | Total ... | 3,791 | 4,489 | |

(*b*) (*3*).—*Regulation of Grazing and Protection from Cattle.*

62. In paragraph 97 of last year's report a mistake was made inasmuch as the introduction of the grazing rules in the Panch Mahals Division was said to be in contemplation whereas they had actually been introduced. With this exception that paragraph might stand in the present report.

63. Dr. Pollen, Collector of the Panch Mahals, writes doubtfully both of the necessity and the actuality of the closure against grazing in his district (*vide* para. 121). This failure was attributed in last year's report (para. 100) to the inefficiency of the establishment, and I think to this may be added want of the organization of the forests. Both these adverse factors, it is to be hoped, will be removed in the near future.

64. The following statement gives the number of animals impounded for trespassing in the open and closed forests during the year:—

| No. | Division. | From open Forests. | | From closed Forests. | | Total. | |
|---|---|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| 1 | East Thána ... | 421 | 230 | 1,260 | 2,086 | 1,681 | 2,316 |
| 2 | West Thána ... | 67 | 161 | 1,598 | 1,280 | 1,665 | 1,441 |
| 3 | Surat ... ... | 314 | 1,070 | 927 | 1,869 | 1,241 | 2,939 |
| 4 | Panch Mahals ... | 1,464 | 661 | 226 | 1,980 | 1,690 | 2,641 |
| | Total ... | 2,266 | 2,122 | 4,011 | 7,215 | 6,277 | 9,337 |

There is an increase in the total of 50 per cent., chiefly in Surat and Panch Mahals, but in actual numbers the increase is not large, and at any rate in Surat, is declared by the Collector to be "not excessive." Dr. Pollen writes severely about the increase in his district; but with all due deference to his recorded opinion I would submit that a total of 2,641 animals impounded in a district with a forest area of nearly 150,000 acres cannot be called excessive. The now almost universally accepted opinion that the admission of cattle is detrimental to forest growth does not, however, seem to be accepted by Dr. Pollen.

*Fencing.*

65. No new fences were erected in the East Thána Division but the old ones were kept in repair.

66. In the West Thána Division the work left unfinished last year was completed and very little new work carried out. This latter was in the Bassein Range where altogether during the year 35,003 running feet of fencing was completed at a cost of Rs. 710.

67. No fencing work of any kind was done in the Surat Division, but in the Panch Mahals 60 acres were enclosed with wire, to form a plantation, at a cost of Rs. 449.

*Civil Suits.*

68 The appeal made to the High Court by the *Isáfatdár* of Amgaon in the Váda Range of the East Thána Division against the decision of the District Court in the suit referred to in para. 111 of last year's report was not heard before the close of the year.

69. An original suit against the Forest Department was filed in the District Court of Thána by one Jan Mahamed Allana of Bombay for the recovery of damages amounting to Rs. 1,750 on account of the exclusion of $11\frac{3}{4}$ acres from the area of the coupe for 1890-91 at Kanher in the Bassein Range after its purchase by him. The suit was, however, compromised by payment of the claim under Government Resloution No. 8211, dated 10th November 1893.

*Criminal Cases.*

70. A forest guard, Vazirkhán Chándkhán, in the Kalyán Range, East Thána Division, was prosecuted for connivance in a theft of timber and was sentenced to two months' rigorons imprisonment, and the sentence was confirmed on appeal.

71. Another forest guard, Náráyan Balwant Khánolkar, in the West Thána Division, was prosecuted for an almost exactly similar offence, with the result that the convicting Magistrate sentenced him to pay a fine of Rs. 50, which sentence was upheld by the Appellate Court.

72. Both these men were of course dismissed and have since been gazetted as ineligible for any Government service.

IMPROVEMENT OF FOREST GROWTH.

(1).—*Natural Reproduction.*

73. Natural reproduction was reported by all the Divisional Forest Officers as fair during the year. In some places fires and grazing are said to have retarded it to some extent. No special cases are recorded from any division.

(2).—*Artificial Reproduction.*

74. In the two Thána divisions artificial reproduction by broad-casting of seed and transplantation of seedlings was confined to the exploited coupes. The results were fairly satisfactory. These cultural operations are partly done by forest guards and partly by paid labour.

75. The regular plantations in the West Thána Division at Deheri, Dáhánu and Persik, which are maintained for experimental and teaching purposes, showed fair results. They contain casuarina, sandal, date, Inga dulcis and other species.

76. The fodder reserves which are situated close to the B. B. & C. I. Railway line in the Máhim Range and which have hitherto been shown as plantations, because it was the custom for many years past to make plantations therein, were during the year finally classed as fodder reserves These reserves from their situation will always return a far higher sustained revenue and a more urgently required produce yield under grass than they would under timber. Further attempts to produce forest growth in them is therefore deemed undesirable. The existing timber growth, which in places is considerable, will, however, be maintained.

77. In East Thána the small regular plantations undertaken in several places are said to have met with a modified degree of success.

78. In Surat, in addition to the regular transplanting operations in exploited coupes, the plantation near Tithal, referred to in paragraph 130 of last year's report, was continued and towards the close of the year was largely extended, but the results of this operation belong to next year's report.

79. In the Panch Mahâls an area of 60 acres was fenced with wire and sown in furrows 3 feet apart, but unfortunately the early promise of this plantation was falsified owing to the area being traversed by fire.

80. A total of 39,555 acres was treated at a cost of Rs. 1,948 under the head of "Cultural Operations" and Rs. 325 were spent on regular plantation during the year.

(3).—*Early Thinning.*

81. No such operations were carried out in this Circle.

(4).—*Other operations for the improvement of the growing Stock.*

82. Creeper cutting by forest guards was carried out as usual, but these men have so much to do that not nearly enough of this work is done and the whole establishment have their hands so full with the yearly increasing work in connection with the coupes that it is impossible to make any organized attempt to do this work with this agency. In West Thâna, however, an effort was made to clear away the "bindukli" (Loranthus longiflora, a species of mistletoe) by paid labour from the standards reserved in the coupes. This operation cost Rs. 108.

(5).—*Experiments.*

83. The Vejâlpur nursery, near Tithal in Surat, reported under this head last year (para. 130), has been transferred to plantations and noticed above. No other experiment is reported as having been tried during the year.

(*d*).—Exploitation of Major Forest Produce.

84. The Thâna forests continue to be worked on a system of coppice with standards with a revolution of 40 years. The reservation of standards is theoretically made to depend on the local conditions. The operation, therefore, varies from coppice with a few reserves to a fairly heavy improvement felling. It is evident that the controlling officers can do little personally in selecting reserves, but as the executive subordinates gain experience and are more and more composed of trained men, this selection of standards in accordance with local conditions will become more and more an important factor in forest working. As far as possible, the trees are sold standing under a contract for each coupe, the price being fixed in a lump sum for each coupe by public sale. Coupes for which no price, or only an inadequate one, can be obtained are worked departmentally, when local conditions require that leaf manure and wood for local consumption should be supplied. In the 284 blocks into which the forest area of the two Thâna divisions is provisionally divided, 276 coupes were laid out for exploitation during the year (coupes were not laid out in the other blocks because either they are classed as "climatic" and exempted from working or because owing to settlement in progress it was thought undesirable to work them). Of these, 126 were sold in each of the two divisions, but in addition to these, 40 coupes which had remained unsold in past years in East Thâna were sold and exploited. The total area brought under the axe was 8,029½ acres in East Thâna and 6,450 acres in West Thâna.

85. In one block only in East Thâna was it found necessary to exploit the coupe departmentally.

86. In the Surat Division exploitation was limited to the Dângs leased forests in which 11,213 cubic feet of green teak were exploited by selection felling, these forests not yet having come under organization. In the rest of the division the forests were not worked, the demand being met from revenue lands outside forests.

87. In the Panch Mahâls the forests were not worked, the material required to meet the demand being obtained from lands outside forest.

(*e*).—Extraction and Transport of Major Forest Produce by Land and Water.

88. There is nothing to be added to what was recorded under this head last year.

### (*f*).—Exploitation of Minor Forest Produce.

#### (1).—*Extraction of Fodder.*

89. Wherever there was a demand the grass of the reserves was sold standing and removed by the purchasers throughout the Circle, but the demand for the cut fodder from forest is nowhere great and the whole revenue from this source was only Rs. 19,677.

#### (2).—*Grazing.*

90. No trustworthy statistics of cattle grazed free and on payment of fee are available, nor can be until the grazing rules are made uniformly applicable to the whole Circle. The Divisional Forest Officers of East and West Thána agree in reporting that concessions of free grazing are too freely made by village officers, and even where the rules are in force they are too liberally construed. The result is a paltry revenue of Rs. 8,979 for the whole Circle and of Rs. 4,224 only for the two Thána divisions. The value of the revenue conceded it is impossible to calculate, but the amount mentioned in paragraph 145 of last year's report is certainly not an exaggeration.

#### (3).—*Miscellaneous Produce.*

91. The miscellaneous products exploited for sale from the forests of the Northern Circle are of no great moment. There is a little hirda (Terminalia chebula) in East Thána; but the concession of the right to hirda in occupied lands makes its exploitation most difficult owing to the facilities for theft thus caused. Hirda has been hitherto collected departmentally, but this year the farm was sold.

92. There is a certain demand in Bombay for leaves of apta (Bauhinia racemosa) for smoking and of Borassus flabelliformis for thatching, and these were farmed in the two Thána divisions. The collection of moho (Bassia latifolia) flowers is farmed in the Surat Division and the revenue may develope, but is small at present.

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## CHAPTER III.

### GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

### DEPARTMENTAL OPERATIONS.

93. Timber and firewood was worked out during the year as follows :—

| No. | Division. | Year. | In Cubic Feet. | |
|---|---|---|---|---|
| | | | Timber. | Firewood. |
| 1 | East Thána ... ... | 1892-93 ... ... | 32,550 | 20,376 |
| | | 1893-94 ... ... | 3,351 | 1,106 |
| 2 | West Thána ... ... | 1892-93 ... ... | 1,245 | 4,714 |
| | | 1893-94 ... ... | 2,423 | 9,255 |
| 3 | Surat... ... ... | 1892-93 ... ... | 77,685 | ..... |
| | | 1893-94 ... ... | 62,523 | ..... |
| 4 | Panch Mahals ... ... | 1892-93 ... ... | 4,070 | 10,700 |
| | | 1893-94 ... ... | 3,710 | 11,375 |
| | Total ... | 1892-93 ... ... | 1,15,550 | 35,790 |
| | | 1893-94 ... ... | 72,007 | 21,736 |

94. The chief difference from last year is in Thána where it was only found necessary to work one coupe departmentally owing to the satisfactory sale of the remainder.

95. As last year an abstract of the details given in Form 59 is given below :—

| No. | Division. | Balance on 1st July 1893. | | | Outturn of the year. | | | Total of Columns 5 and 8. | Disposed of during the year. | | | Balance on 30th June 1894. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Timber. | Fire-wood. | Total. | Timber. | Fire-wood. | Total. | | Timber. | Fire-wood. | Total. | Timber. | Fire-wood. | Total. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| | | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. |
| 1 | East Thána .. .. | .. | .. | .. | 3,351 | 1,106 | 4,457 | 4,477 | 3,279 | 1,106 | 4,385 | 72 | .. | 72 |
| 2 | West Thána .. .. | 1,344 | 2,250 | 3,594 | 2,423 | 9,255 | 11,678 | 15,272 | 1,842 | 11,405 | 13,247 | 1,925 | 100 | 2,025 |
| 3 | Surat .. .. .. | 3,707 | .. | 3,707 | 62,523 | .. | 62,523 | 66,230 | 44,347 | .. | 44,347 | 21,883 | .. | 21,883 |
| 4 | Panch Mahals .. .. | 820 | 2,300 | 3,120 | 3,710 | 11,375 | 15,085 | 18,205 | 3,744 | 8,320 | 12,064 | 786 | 5,355 | 6,141 |
| | Total .. | 5,871 | 4,550 | 10,421 | 72,007 | 21,736 | 93,743 | 104,184 | 53,212 | 20,831 | 74,043 | 24,666 | 5,455 | 30,121 |

96. The only figure in the above calling for remark is the large balance in Surat at the close of the year which represents the stock in the Wágrech Sale Depôt near Billimora, Surat District, consisting of wood brought for sale from the Dángs.

## REMOVAL OF PRODUCE BY PURCHASERS.

### Timber and Firewood.

97. The exploitation of major produce by contractors under the Thána working scheme compared with that of 1892-93 was as follows :—

| No. | Division. | Coupes exploited. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1892-93. | | | | 1893-94. | | | |
| | | Number. | Area. | Receipts. | Average price per Acre. | Number. | Area. | Receipts. | Average Price per Acre. |
| | | | | Rs. | | | | Rs. | |
| 1 | East Thána ... | 85 | 4,711½ | 92,551 | 19·4 | 146 | 8,029½ | 1,89,316 | 23·6 |
| 2 | West Thána ... | 140 | 7,321¼ | 2,62,253 | 35·8 | 124 | 6,450 | 2,69,238 | 41·8 |
| | Total ... | 225 | 12,032¾ | 3,54,804 | 29·5 | 270 | 14,479½ | 4,58,554 | 31·7 |

98. The rise in the sale rate per acre in both divisions is most satisfactory, especially when it is remembered that, as recorded elsewhere in this report, more than 20 of the coupes exploited this year were coupes for which no sale could be found in past years.

99. The gross produce yield of the coupes worked is estimated by the Divisional Forest Officers as follows :—

| No. | Division. | Timber in Cubic Feet. | | Firewood, including Charcoal, in Cubic feet. |
|---|---|---|---|---|
| | | Teak. | Jungle-wood. | |
| 1 | East Thána ... ... ... ... | 1,061,071 | 530,536 | 2,027,885 |
| 2 | West Thána ... ... ... ... | 1,149,958 | 489,916 | 1,841,200 |
| | Total, 1893-94 ... | 2,211,029 | 1,020,452 | 3,869,085 |
| | Total, 1892-93 ... | 1,660,165 | 948,487 | 3,616,843 |

100. This estimate, however, does not include the small branchage and dead wood which under concession of Government are removed by the local villagers. The amount of this small wood cannot be estimated, there being absolutely no data. A guess last year put it at 600,000 cubic feet. I should think this was rather under than over the mark.

101. The timber and firewood removed by purchasers in Surat was as follows:—

| Year. | Timber. | Firewood. |
|---|---|---|
| | Cubic ft. | Cubic ft. |
| 1892-93 ... ... | 68,690 | 30,739 |
| 1893-94 ... ... | 71,634 | 14,822 |

102. The whole of this timber was practically from the Dángs, less than 5,000 cubic feet being obtained in the rest of the Division, and of this 5,000 nearly 3,000 cubic feet came from the Mándvi Range. On the other hand the bulk of the 14,822 cubic feet of firewood came from Mándvi, only about 5,000 being exploited in the Dángs.

103. In the Panch Maháls the year's working compares with that of last year as follows:—

| Year. | Timber. | Firewood. |
|---|---|---|
| | Cubic ft. | Cubic ft. |
| 1892-93 ... ... | 208,068 | 242,281 |
| 1893-94 ... ... | 195,245 | 415,696 |

104. As last year the timber shown as exploited is the produce of Government land outside forest.

## Bamboos.

105. The yield of bamboos is given in the following table:—

| No. | Division. | Bamboos removed, 1892-93. | | | | Bamboos removed, 1893-94. | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Cart-loads. | Head-loads. | Number. | Amount realized. | Cart-loads. | Head-loads. | Number. | Amount realized. |
| | | | | | Rs. | | | | Rs. |
| 1 | East Thána ... ... | 1,086 | 6,386 | 288,673 | 9,004 | 40 | 7 | 228,890 | 815 |
| 2 | West Thána ... ... | 8,655 | 5,525 | 2,027,223 | 12,705 | 7,166 | 2,451 | 2,332,393 | 18,127 |
| 3 | Surat ... ... ... | ... | ... | 1,136,155 | 25,354 | ... | ... | 901,558 | 25,474 |
| 4 | Panch Maháls ... | 193 | ... | 217,272 | 2,899 | 135 | ... | 117,051 | 1,484 |
| | Total ... | 9,934 | 11,911 | 3,669,323 | 49,972 | 7,341 | 2,458 | 3,579,892 | 45,900 |

## Minor Produce.

106. The following comparative statement gives the yield of minor produce for the year:—

| Number. | Division. | 1892-93. | 1893-94. |
|---|---|---|---|
| 1 | East Thána ... ... ... | 655 | 2,747 |
| 2 | West Thána ... ... | 2,475 | 2,436 |
| 3 | Surat ... ... ... | 2,103 | 2,162 |
| 4 | Panch Maháls ... ... | 2,371 | 583 |
| | Total Rs. ... | 7,604 | 7,928 |

## FREE GRANTS OF FOREST PRODUCE.

107. The free grants of timber, &c., made under the authority of the Commissioner during the year, as compared with those of last year, are given below :—

| Number. | Division. | 1892-93. | | | 1893-94. | | |
|---|---|---|---|---|---|---|---|
| | | Rs. | a. | p. | Rs. | a. | p. |
| 1 | East Thána ... ... | 378 | 8 | 0 | 1,618 | 0 | 0 |
| 2 | West Thána ... ... | 49 | 12 | 0 | 30 | 0 | 0 |
| 3 | Surat ... ... | 703 | 0 | 0 | 473 | 0 | 0 |
| 4 | Panch Mahals... ... | 729 | 4 | 0 | 836 | 0 | 0 |
| | Total ... | 1,860 | 8 | 0 | 2,957 | 0 | 0 |

108. The large increase in East Thána is probably due to a grant made to the villagers of Dughád in the Bhiwndi Range whose houses were destroyed by fire.

# CHAPTER IV.

## FINANCIAL RESULTS.

109. The financial results of the year under report are a record. Last year Mr. Dasái considered them satisfactory though the gross receipts and net revenue were respectively less by Rs. 2,000 and 5,000 than those of 1890-91. During 1893-94 they are greater than the figures of 1890-91 by just over and just under 1¼ lákhs of rupees respectively.

110. The following statement gives the details by main heads of revenue and expenditure for 1892-93 and 1893-94 :—

| Budget Main Heads. | 1892-93. | | | 1893-94. | | |
|---|---|---|---|---|---|---|
| RECEIPTS. | Rs. | a. | p. | Rs. | a. | p. |
| I ... ... | 50,554 | 2 | 9 | 26,602 | 7 | 1 |
| II ... ... | 5,67,576 | 14 | 8 | 6,75,989 | 11 | 10 |
| III ... ... | 2,071 | 6 | 2 | 3,089 | 0 | 3 |
| IV... ... ... | 1,569 | 4 | 2 | 36,709 | 15 | 11 |
| V... ... ... | 13,676 | 14 | 5 | 18,562 | 10 | 4 |
| Total, Receipts ... | 6,35,448 | 10 | 2 | 7,60,953 | 13 | 5 |
| *Expenditure.* | | | | | | |
| *A.—Conservancy and Works.* | | | | | | |
| A.—I ... ... | 7,692 | 5 | 5 | 17,662 | 1 | 3 |
| A.—II ... ... | 12,040 | 1 | 0 | 12,366 | 8 | 6 |
| A.—III ... ... | 57 | 7 | 0 | 103 | 2 | 11 |
| A.—IV ... ... | ..... | | | ..... | | |
| A.—V ... ... | 16,963 | 4 | 6 | 15,780 | 9 | 2 |
| A.—VI ... ... | 1,303 | 12 | 6 | 490 | 10 | 9 |
| A.—VII ... ... | 4,136 | 4 | 1 | 7,327 | 8 | 0 |
| A.—VIII ... ... | 70,783 | 2 | 4 | 38,473 | 9 | 10 |
| A.—IX ... ... | 762 | 8 | 2 | 5,842 | 10 | 10 |
| Total, A—Conservancy and Works ... | 1,14,008 | 13 | 0 | 98,046 | 13 | 3 |
| *B.—Establishments.* | | | | | | |
| B.—I ... ... | 1,30,544 | 2 | 9 | 1,39,194 | 10 | 2 |
| B.—II ... ... | 18,889 | 14 | 1 | 20,522 | 14 | 7 |
| B.—III ... ... | 5,843 | 9 | 1 | 7,182 | 2 | 0 |
| Total, B.—Establishments... | 1,55,277 | 9 | 11 | 1,66,899 | 10 | 9 |
| Grand Total, Expenditure... | 2,69,286 | 6 | 11 | 2,64,946 | 8 | 0 |
| Net Revenue ... | 3,66,162 | 3 | 3 | 4,96,007 | 5 | 5 |

111. From the above it will be seen that the gross receipts are 1¼ lákhs in excess of those of 1892-93. There was a decrease of Rs. 24,000 under I.—*Departmental Working*, which was much more than balanced by an increase of over one lákh obtained by the sale of coupes to contractors (II). This is in every way satisfactory as showing the steadily increasing demand for the standing coupes at enhanced rates which renders departmental working unnecessary. There was a large fluctuation under IV.—*Revenue from forests not managed by Government.* The amount credited in 1892-93, *viz.* Rs. 1,569, was obtained from shares of inám forests sold in Thána. In 1893-94 there was Rs. 1,702 revenue from this source in Thána, and the Government share of 3 inám villages in the Panch Mahals, of which the forests were sold during the year, amounted to Rs. 35,000.

112. The total expenditure shows a decrease of rather more than Rs. 4,000 over that of 1892-93. This, however, is made up of a decrease of nearly Rs. 16,000 under A.—*Conservancy*, and an increase of Rs. 11,600 under B.—*Establishments.* This increase is due chiefly to the pay of Mr. Duxbury who was attached to this Circle during the year, to promotions, &c.

113. The decrease under A, however, is more complicated. It is composed mainly of (1) an increase of Rs. 10,000 expenditure under A. I.—*Departmental Working* debited in the Surat Division during the year though belonging to 1892-93; (2) an increase of Rs. 5,000 due to Law Charges in West Thána (sanctioned in Government Resolution No. 8211, dated 10th November 1893), and (3) expenses on account of uniforms belonging to 1892-93, but debited during the year under report. This increase is more than balanced by a decrease of over Rs. 30,000 under *A. VIII.—Organization, Improvements, &c.* This decrease, however, is mainly due to the inflation of the expenditure under this head in 1892-93 on account of payments for Land Compensation in connection with the catchment area of the Tánsa Lake.

114. The following statement gives the financial results of the Northern Circle as now constituted for the past 10 years :—

| | Receipts. | Expenditure. | | | Net Revenue. |
|---|---|---|---|---|---|
| | | A. | B. | Total. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1883-84... ... | 4,83,560 | 1,00,631 | 65,392 | 1,66,023 | 3,17,537 |
| 1884-85... ... | 4,98,329 | 1,78,621 | 80,624 | 2,59,245 | 2,33,925 |
| 1885-86... ... | 5,25,484 | 76,742 | 1,42,953 | 2,09,695 | 3,15,789 |
| 1886-87... ... | 4,43,157 | 89,724 | 1,44,507 | 2,34,231 | 2,08,926 |
| 1887-88... ... | 4,73,104 | 85,645 | 1,45,407 | 2,31,052 | 2,42,052 |
| 1888-89... ... | 5,78,425 | 88,924 | 1,47,364 | 2,36,288 | 3,42,137 |
| 1889-90... ... | 5,96,066 | 93,419 | 1,45,341 | 2,38,760 | 3,57,306 |
| 1890-91... ... | 6,37,408 | 1,04,809 | 1,39,880 | 2,44,689 | 3,92,719 |
| 1891-92... ... | 6,14,270 | 93,399 | 1,30,089 | 2,23,488 | 3,90,782 |
| 1892-93... ... | 6,82,884 | 1,38,639 | 1,96,486 | 3,35,125 | 3,47,759 |
| 1893-94... ... | 7,60,953 | 98,047 | 1,66,899 | 2,64,946 | 4,96,007 |

*Note.*—The figures for the years 1883-84 to 1891-92 inclusive are for the financial year from 1st April to 31st March and those for 1892-93 and 1893-94 are for the forest year from 1st July to 30th June.

# CHAPTER V.

## FOREST ADMINISTRATION.

### ADMINISTRATIVE CHARGE.

115. Mr. F. R. Dasái, Deputy Conservator of Forests, was in charge of the Circle practically for the whole year under report. He was relieved by undersigned on the 28th April 1894.

## CONTROLLING CHARGES.

116. There was no change in the divisional charges during the year.

117. The various divisions were held by officers as follows :—

| No. | Division. | Name of Officer. | Rank. | Designation. | Period of holding charge. | |
|---|---|---|---|---|---|---|
| | | | | | From | To |
| 1 | East Thána ... | C. Greatheed ... | Deputy Conservator of Forests, 3rd Grade. | Divisional Forest Officer. | 1st July 1893 ... | 30th June 1894. |
| 2 | West Thána .. | G. P. Millett ... | Do. do. 4th Grade. | Do. ... | Do. ... | 10th April 1894. |
| | | T. B. Fry ... ... | Do. do. 2nd Grade. | Do. ... | 11th April 1894 ... | 9th May 1894. |
| | | G. P. Millett ... | Do. do. 4th Grade. | Do. ... | 10th May 1894 ... | 30th June 1894. |
| 3 | Surat ... ... | W. A. Wallinger .. | Extra Assistant Conservator of Forests, 2nd Grade. | Do. ... | 1st July 1893 ... | Do. |
| 4 | Panch Mahâls . | W. F. D. Fisher ... | Assistant Conservator of Forests, 2nd Grade. | Do. ... | Do. ... | 4th September 1893. |
| | | A. N. Master ... | Extra Assistant Conservator of Forests, 4th Grade. | Do. ... | 5th September 1893. | 5th October 1893. |
| | | W. F. D. Fisher ... | Assistant Conservator of Forests 2nd Grade. | Do. ... | 6th October 1893 ... | 12th February 1894. |
| | | F. R. Dasái... ... | Deputy Conservator of Forests, 1st Grade, | Do. ... | 13th February 1894 . | 28th February 1894. |
| | | A. N. Master ... | Extra Assistant Conservator of Forests, 4th Grade. | Do. ... | 1st March 1894 ... | 12th April 1894. |
| | | W. F. D. Fisher ... | Assistant Conservator of Forests, 2nd Grade. | Do. ... | 13th April 1894 ... | 30th June 1894. |
| 5 | Working Plans. | T. B. Fry ... ... | Deputy Conservator of Forests, 2nd Grade. | Do. ... | 1st July 1893 ... | 4th August 1893. |
| | | G. P. Millett ... | Do. do. 4th Grade. | Do. ... | 5th August 1893 ... | 4th November 1893. |
| | | T. B. Fry ... ... | Do. do. 2nd Grade. | Do. ... | 5th November 1893. | 9th May 1894. |
| | | G. P. Millett ... | Do. do. 4th Grade. | Do. ... | 10th May 1894 ... | 30th June 1894. |

118. The following officers held charge of the sub-divisions during the year :—

| No. | Division. | Name of Officer. | Rank. | Designation. | Period of holding Charge. | |
|---|---|---|---|---|---|---|
| | | | | | From | To |
| 1 | East Thána ... | A. N. Master ... | Extra Assistant Conservator of Forests, 4th Grade, | Shahápur Sub-Division Forest Officer. | 1st July 1893 ... | 2nd September 1893. |
| | | K. B. Phadke ... | Do. do. ... | Do. ... | 3rd September 1893. | 8th October 1893. |
| | | A. N. Master ... | Do. do. ... | Do. ... | 9th October 1893 ... | 26th February 1894. |
| | | C. Greatheed ... | Deputy Conservator of Forests, 3rd Grade. | Do. ... | 27th February 1894. | 16th April 1894. |
| | | A. N. Master ... | Extra Assistant Conservator of Forests, 4th Grade. | Do. ... | 17th April 1894 ... | 30th June 1894. |
| | | K. B. Phadke ... | Do. do. ... | Kalyán Sub-Division Forest Officer. | 1st July 1893 ... | 8th May 1894. |
| | | A. N. Master ... | Do. do. ... | Do. ... | 9th May 1894 ... | 30th June 1894. |
| 2 | West Thána ... | V. D. P. Ribeiro... | Do. do. ... | Bassein Sub-Division Forest Officer. | 1st July 1893 ... | 16th September 1893. |
| | | Shaikh Hassan Alli Mahomed Alli. | Acting do. do. ... | Do. ... | 17th September 1893. | 16th November 1893. |
| | | V. D. P. Ribeiro ... | Extra do. do. ... | Do. ... | 17th November 1893. | 30th June 1894. |
| 3 | Surat ... ... | C. G. Dalia ... | Acting do. do. ... | Surat Sub-Division Forest Officer, | 1st July 1893 ... | 16th January 1894. |
| | | W. A. Wallinger ... | Extra Assistant Conservator of Forests, 2nd Grade. | Do. ... | 17th January 1894 . | 16th February 1894. |
| | | C. G. Dalia... ... | Acting do. do., 4th Grade. | Do. ... | 17th February 1894 . | 30th June 1894. |

119. Mr. G. R. Duxbury, Assistant Conservator of Forests, a new recruit from Cooper's Hill, was posted to this Circle and was attached to the Circle office from 29th November to 2nd January 1894. From 3rd January he was placed under Mr. Millet, Divisional Forest Officer, West Thána, where he continued up to 4th June 1894, when he was transferred to the Central Circle.

## GENERAL REMARKS.

120. Both the Thána Divisional Forest Officers report extensive clearing of the land by occupants put into possession of the junglewood trees growing on their numbers. Mr. Silcock takes a hopeful view in his memorandum sending on the East Thána report which I hope may prove well founded ; my own experience leads me to a much less sanguine view.

121. The following are the minutes recorded by the various Collectors in forwarding the forest administration reports of their districts :—

(1) Mr. Silcock's minutes on the West Thána report :

"Mr. Millet has written an interesting report showing a record of good work during the year, but as undersigned is quite new to this district and the forest management therein, he is unable to criticise it in detail.

"2. It is satisfactory to find that the revenue is steadily increasing, while there is little or no friction with the people. It would be advisable, therefore, to somewhat increase the protective establishment, which is very heavily worked at present. The revenue can well afford a larger expenditure.

"3. From what undersigned has seen of the magisterial work of this district in connection with forest cases, and he has examined a large number since his arrival, he can hardly agree with Mr. Millett that failures of justice often occur. Mr. Millett naturally views all cases from the prosecutor's point of view, and hence his conclusion. The mere fact too that because certain people were willing to compound offences, it is proof positive that they had committed them is not a safe theory, as many will pay money to get off the inconvenience and expense of a prosecution even though they may be innocent.

"4. As regards the traffic in dead wood, notice has been issued that it must cease in the Sálsette Táluka from November 1st. The experience gained in this táluka will be useful when considering the advisability of issuing a similar prohibition in other tálukas. At present it might be a dangerous experiment to suddenly stop the trade in the whole district, and to make the prohibition effective would possibly require a considerable increase not only to the protective but also to the magisterial establishments of the district, and it is therefore better to proceed slowly.

"5. It is unfortunate that extensive fires in Bassein and Máhim should have occurred to spoil the fire record for the year, but deliberate incendiarism is very hard to prevent or detect; and as it appears very probable that these fires were owing to a revengeful spirit, they may be considered exceptional and that as a rule fire protection has been fairly satisfactory.

Fires.

"6. As regards the extension of the grazing rules to the whole of the Division as recommended by the Divisional Forest Officer in paragraph 52 of his report, undersigned sees no reason why this should not be done; but he finds from this office records that for some reason unknown it was arranged that the rules were only to be introduced as an experiment in three tálukas until the revision survey operations were concluded. How the revision survey can practically affect forest areas he does not understand, but he is not prepared to recommend the reversal of previous orders until he has had a more extended knowledge of the district and more especially until he sees how the rules have worked in the Kalyán and Bhiwndi Tálukas of the East Thána Division. The amount of fees collected in West Thána is comparatively trifling and shows a great decrease on the previous year's figures, and in Bassein itself the decrease is equally marked."

Cattle.

(2). Mr. Silcock remarks on the East Thána Divisional Forest Officer's report:—

"It is satisfactory to find that in this Division as well as in West Thána the forest revenue is steadily increasing and it should be possible now to increase the protective staff, as this seems badly wanted judging from the remarks of the Divisional Forest Officer in the 15th and following paras. of his report.

"2. While it is a matter of regret that there should have been such a wholesale exploitation by the cultivators of their injáili woods it was a natural result of their getting possession of them for the first time, but there is no reason to think that now they have got used to the idea of ownership they will go on with reckless cuttings to their own eventual loss.

"3. There has been a marked increase in forest offences during the year, which is not a very satisfactory feature, the number of undetected offences being especially large, fires too show a great increase; but it is not understood how the occurrence of fires can have been affected by the Government Resolution on the Forest Report for 1890-91. That the villagers are of themselves prompt in turning out to extinguish fires is somewhat satisfactory; possibly in time they will see it is to their advantage to prevent them altogether.

"4. As regards grazing, it is not understood whether the whole Division is dealt with or only the tálukas (two it is believed) in which the grazing rules are in force, and it would have been better had this been clearly shown. It would then have been possible to judge of the advisability of introducing the rules into the whole Division. It should not be impossible to carry out the test laid down in Rule XIII when anything wrong is suspected. It is not at all necessary that it should be done continuously and the time spent could not interfere much with the other forest duties while it might result in a considerable gain to Government. At present the revenue derived from "Grazing Fees" is very small for such a large Division.

"5. Mr. Greatheed has evidently been active in his movements during the year and has exercised considerable supervision over his subordinates. His report is clear and concise, but a little more with advantage might have been said regarding the use or abuse of privileges in forests."

(3). Mr. Lely, Collector of Surat, remarks on the Divisional report of the Forest Officer, Surat :—

"It is satisfactory that gradual progress is being made in demarcating the forests by cairns and to a certain extent by wire fencing. It is due to the rayats that the limits beyond which to go is trespass should be clearly defined.

"There has been a considerable expenditure on roads and buildings in the Dángs, but scarcely any in the Surat District.

"Prosecutions and compoundings under Section 67 have been, as Mr. Wallinger says, insignificant. The case in which the late Pátel of Tarsada is alleged to have been inadequately punished was not brought at the time to the notice of the District Magistrate. The proceedings have now been sent for. It appears however from the criminal calendar file that the fine inflicted was not Rs. 5 but Rs. 25.

"The chief trouble in this district is the frequency of fires. With the heavy destruction in the Dángs the undersigned is not specially concerned, but 11,491 acres burnt over in Mándvi out of a total reserved area of 41,164 acres cannot be considered "satisfactory." It is difficult to suggest a remedy that will at once be effective, but this much may at least be said that an essential preliminary is an increase in the protective establishment. This subject has been treated at length in this office No. 3398 of 10th Instant to the address of the Commissioner, Northern Division.

"Another means of stimulating the zeal of subordinates would be to authorize the Divisional Officer to give small rewards for special service. This system is found necessary in the police, and would be still more appropriate to a body of men who have to work hard at a distance from their homes under the depressing influences of isolation and bad climate. The personal recognition involved in a present of a rupee or two for some special merit would often encourage a man as much as a promotion which is not always possible. It would probably do much to improve the present low tone of the subordinate grades.

"The number of animals impounded shows a considerable increase but is not excessive.

"With regard to the proposed depôt at Surat, referred to in Mr. Wallinger's 69th paragraph, the undersigned was less anxious to see it established when it appeared by working out the figures that it would be impossible to supply firewood through it to the city of Surat so cheap as by private agency. As pointed out however by Mr. Wallinger, it would be a most valuable basis of operations for the forest timber trade and on this ground alone it is a pity that the Military authorities have raised exaggerated objections. Perhaps the matter may yet be reconsidered.

"With reference to the Divisional Officer's paragraph 76 there seems to have been some misunderstanding. The intention of the Collector is and always has been that the Forest Department as owner of toddy trees within their limits should levy a rent of one rupee per tree provided the lessee was a cultivator of the land or a licensed toddy retailer. The charges under the A'bkári Act would still remain to be collected. This arrangement is in accordance with the law and, in fact, is the only one practicable.

"The revenue returns are satisfactory, and on the whole the forest administration of the district has been successful."

(4). Mr. Cumine, Political Agent, Khándesh, remarks on the Administration Report of the Surat Division :—

"The part of it that concerns me is the part about the Dángs. I have not yet been in the Dángs at all. But from what Mr. Wallinger says it is evident that if the Dáng forests are to be conserved at all, more money must be spent on them. It is true that Mr. Wallinger on his part has, with the little money he had, done his best for us in the way of buildings and roads, though of course no real road could possibly be constructed, 16 miles in length, for Rs. 823. But I was not thinking of roads and buildings, nor of the money at Mr. Wallinger's command. I was thinking of increased establishment, of better paid establishment, of better protection from fire and cattle. If practically the whole area of Dáng forest is burnt over every year, as Mr. Wallinger says, and if forest fires really destroy seedlings to the extent that they are supposed to do, then the total destruction of the Dáng forests is only a question of time and not a very long time unless Government spend more money to try and prevent it. I cannot agree possibly because I do not know the Dángs—with what Mr. Wallinger says as to the good that would result to the Dáng people and the community generally from withdrawing most of the privileges at present allowed to the people. But with this exception all that Mr. Wallinger says about the Dángs is to be received with consideration as coming from one who has evidently devoted a deal of time and attention to that little-known country."

(5). Remarks on the Administration Report of the Panch Mahál Division :—

"If the forests of the Panch Mahál are not to be worked for many years to come, it is not understood why the Working Plans Officer should be hurried up here. Mr. Fisher says

this officer will be able to have his plans cut and dry, but it is just possible they may become unduly dried before they can be brought into operation with any advantage to the district.

"No doubt the demand for wood is steadily increasing; but judging from what he has seen of the jungles of the neighbouring States and the forest growth on waste lands in this district, it will, the undersigned thinks, be many a long year before the reserved forests of the Panch Mahâls are called upon to supply the wants of the timber trade. In the meantime there seems no necessity to expose more Europeans to the climate which Mr. Fisher not unjustly describes as 'deadly.'

"Mr. Fisher suffered much in health and could not get on with the demarcation work satisfactorily. He should have had the services of a native assistant.

"Little information of any value or importance can be gathered from the comparative statement of forest offences, and the Collector doubts the explanations which Mr. Fisher gallantly attempts. The same remark applies to forest fires. The forest administration here has not as yet reached such a state of perfection as to render comparisons of this kind instructive.

"The grazing rules are, strictly speaking, not applicable to the Panch Mahâls forests which are not yet being worked. One-third of the whole area is supposed to be closed and on the maps the closures look perfect enough; but in practice these closures have resulted in little or no benefit to the forests and inconsiderable annoyance to the people whose cattle have been freely impounded in places. The fact of the matter is the Panch Mahâls forests (for the most part) do not suffer in the least from being open to grazing, and little or no difference is observable between the condition of the closed and that of the unclosed tracts. More than four times the number of buffaloes and twice the number of cows and bullocks were impounded this year, while the number of impounded goats—the real mischief workers—only slightly increased. The amount of discontent caused throughout the country-side can be gauged by a consideration of these figures, while the advantage to the forests can be aptly represented by the figure 0.

"Government in the Public Works Department have pronounced most positively and emphatically against the use of barbed wire (*vide* Resolution No. 195 C. W.—802, Public Works Department, of 29th May 1893), but the Forest Department here uses no other and Mr. Fisher, not without reason, strongly upholds its use. Goats have little regard for wire of any other sort.

"Into the technical part of Mr. Fisher's report it is not for the Collector to go, but he notes that, as usual miscellaneous items of land revenue tend to swell the nominal forest income.

"The financial results show the large surplus of Rs. 31,255-10-6, due chiefly to an important sale effected by the Deputy Conservator while on tour in this district.

"Mr. Fisher was as usual devoted to duty and has proved himself an able, energetic, and observant Forest officer. Although in common with all the European officers he suffered severely in health, he managed to make an extensive tour, and his keen interest in his duties and zeal for the good of his Department continued unabated throughout the year.

"The Collector viewed his transfer from this district with regret."

122. Mr. Dasái records the following memorandum of his tour of inspection:—

"It having been brought to my notice that better prices would be obtained at the annual sales of timber and other forest produce if they were confirmed on the dates advertized for receiving tenders and holding auctions, I went early in August to Thána and to Surat in September for the purpose of being on the spot to accept the most desirable offers.

"(2). I commenced my cold weather tour on the 5th November and went to Thána to be present at a meeting called at the instance of the Collector to discuss the working of the orders recently issued by Government regarding the disposal of reserved trees in varkas lands.

"(3). Leaving Thána on the 12th, I marched through a part of the Kalyán Range inspecting timber and cultural operations and reached Murbád on the 26th. At this camp I met Mr. Greatheed, Divisional Forest Officer, East Thána, with whom some coupes in the neighbourhood were visited, as well as general questions of forest administration pertaining to his division were discussed. Mr. Duxbury, Assistant Conservator of Fosests, a new recruit from Cooper's Hill, reported himself for duty on the evening of the 29th, and taking him with me I passed rapidly through the Shahápur and Khardi Ranges, inspecting the forests and depôts met with on the way and reached Kására on the Thal Ghát on the 8th December.

"(4). From the 10th to the 16th my camp was in the Mokháda Range. The office and heavy baggage were sent to Surya Mal by road *viâ* Khardi and Párali, when I reached this place after visiting Vehigaum, Khodalla, Koshimshet and Mokháda. A more careful inspection of the forests in this Range than I was able to make last season has convinced me that the Thána Working Plan is inapplicable to them and will have to be modified.

Until there are greater facilities for export, it must be altered to suit local conditions. During this visit I also satisfied myself that the proposal to construct a road from Morkhadak in the Mokháda Petha to Trimbak in the Násik Collectorate will not benefit the forests at all as the line which it is to take will not tap any of the forests. An application, purporting to come from occupants, having roused my suspicions that it was not made in good faith, I took the opportunity of being on the spot to impress on the Revenue and Forest subordinates the necessity of keeping a sharp watch on the felling of reserved trees in varkas lands as I presume it is not the intention of Government that not over-scrupulous contractors on the Násik border should take undue advantage of their bounty to the rayats and enrich themselves at the expense of the State.

"(5). Camp moved to Váda on the 18th to Manor on the 20th, and reached Pálghar Station on the B. B. & C. I. Railway on the 22nd December.

"(6). After the Christmas vacation the office opened at Godhra in the Panch Maháls District, to which place it had gone by Railway in the meanwhile, and I marched through the forests of this Range and reached Jhálod on the 15th January. Here the Mahálkari brought to my notice that the sale depôt was inconveniently situated, and in his company I selected another site which is within municipal limits and consequently is more easy of access to the people than the old one, which is half a mile outside of the town. Camp moved to Gultora on the 19th where Mr. Fisher, Divisional Forest Officer, joined me. On the 23rd, ordering the camp to march to Himala in Dohad Táluka, I went to Limbdi to see the Collector of the Panch Maháls, Dr. J. Pollen, to discuss the forest business of the Collectorate and especially to come to an understanding in the matter of the disposal of teak trees in the inám lands of Khotada, Khamda, and Salya, in which Government is a co-sharer. The controversy had been of long standing and was intricate owing to the inámdárs having mortgaged their share to an influential Bohora in Godhra, and it was proposed that the Government share should also be sold to him for Rs. 20,000. On my advising the Collector that this price should not be accepted as I considered it inadequate, he left me to settle the matter at my discretion. Immediately on reaching Dohad, therefore, I called the inámdárs concerned and the mortgagee before me. The latter naturally held out as long as he could to his first offer of Rs. 20,000, but as I was quite confident that the Government share was at least worth Rs. 35,000, I stood firm and ultimately succeeded in getting him to agree to pay that price.

"(7). After seeing this business through, Mr. Fisher conducted me over the firewood felling operations which were in progress in the vicinity of Dohad in connection with the construction of the Godhra-Rutlam Railway, and as we were going to separate, he was seized with a persistent attack of fever. The Civil Surgeon having advised immediate change, I attached the Divisional Office to my own and allowed Mr. Fisher to proceed on a month's privilege leave to Bombay. With the two offices I then passed through the Kálol and Hálol Tálukas, reaching Kim in the Surat Division on the 27th February.

"(8). Unfortunately, at the very next camp, Usked, on my way to Mándvi, I myself was prostrated by influenza, and as the attack did not appear to be a mild one, I went into Surat on the 9th March and was under medical treatment till the 16th March. Leaving Surat in a native boat on the following day I travelled by sea to Wagrech, arriving at this depôt on the 19th.

"(9). After the Easter vacation the office opened at Balsár and on the 28th I assisted the Divisional Forest Officer at the auction sale of the Dáng timber stored at the Wagrech depôt. Mr. Wallinger accompanied me back to Balsár and stayed with me the two following days for the purpose of conferring on the Dáng timber operations, the establishment of a nursery at Lilápur and other forest questions affecting his Division.

"(10). A relapse of the influenza having come on, I was not able to leave Balsár till the 12th March, on which date I received a letter from the Private Secretary to His Excellency the Governor that Mr. Wroughton had been appointed to the Northern Circle and would relieve me on return from furlough. Consequently I had to give up my intention of passing a fortnight in the Dángs and to keep along the railway line in the Umbargaon and Dáhánu Ranges, so as to reach head-quarters on or about the date of his expected arrival."

123. I took over charge of the Circle from Mr. Dasái on the 27th April at Bándra, and the office from that date remained at head-quarters. The offices of the East and West Thána, Working Plans, and Surat Divisions were, however, inspected in the interval before the close of the year.

124. It will be seen that each of the Collectors recognizes the good work done by the Divisional officer whose work has come under his notice. Mr. Dasái wishes special mention to be made of the good work done by Messrs. Millett and Wallinger.

125. All the extra Assistants are reported to have worked well. Mr. Phadke however, has suffered considerably from fever, thus detracting from his efficiency.

126. During the year 3 Range Forest Officers retired from Government service on pension earned by long periods of approved service, *viz.* :—

Shekh Abas Shekh Alli Potrik, Ranger, Rs. 100, after 30 years' service, at the age of 60.

Wallabhram Mulji Bhat, Ranger, Rs. 80, on completing 30 years' service.

Bholanath Ranchordas, invalided after 27 years' service.

127. On the whole the Range Forest Officers have worked well during the year : the following are specially mentioned in the Divisional reports :—

1. Hasan Alli Mahomed Alli.
2. Mancharji Byramji.
3. Shekh Ahmed Nur Mahomed.
4. Sadashiv Pandurang Limaye.
5. Hari Anant Bhadbhade.
6. Ganesh Ramchandra Samant.
7. Shekh Usman Shekh Idrus.

128. In addition to the 2 men convicted of penal offences as mentioned in paragraphs 70 and 71, 15 Forest guards were dismissed during the year ; the reasons assigned being overstaying leave and general misconduct.

129. The Divisional office establishments are also reported to have worked well as has that of the Deputy Conservator under Mr. Shivram Bhikaji Rangnekar.

130. The mortality amongst the guards was rather heavier than last year. Twenty men are reported as having died in Thána and the Panch Mahálś, of whom 3 died of cholera and 1 of snake-bite in East Thána, and 1 in East Thána and 7 each in West Thána and the Panch Mahálś of fever. No deaths are reported from the Surat Division.

R. C. WROUGHTON,
Deputy Conservator of Forests, N. C.

*Bándra, 12th October 1894.*

B 1106—7 N. C.

FORM No. 46.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Area of Reserved Forests, 1893-94.*

| Division. | Civil District or Territory. | Name of Forest. | Area on 1st July 1893. | | Added during the year. | Excluded or transferred to other heads. | Area on 30th June 1894. | | No. and date of Notification of addition or transfer. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Acres. | Equivalent in Square Miles. | Acres. | Acres. | Acres. | Equivalent in Square Miles. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | | | Sq. m. a. | | | | Sq. m. a. | | |
| East Thána* ... | Thána ... ... | | 2,25,825 | 352 545 | 4,526 | 159 | 2,30,192 | 359 432 | Nos. 7806 / 24-10-93, 7956 / 30-10-93. Nos. 7962 / 30-10-93, 9070 / 11-12-93. Nos. 4360 / 17-5-94, 2683 / 17-4-94. | *Váda Range is included in this Division, and Talasri Mahál is excluded from this Division as per Government Resolution No. 985, dated 4th February 1893, Revenue Department. †Talasri Mahál is included in this Division. Váda Range is excluded from this Division as per Government Resolution No. 985, dated 4th February 1893, Revenue Department. |
| West Thána† ... | Do. ... ... | | 2,00,221 | 312 541 | 46,362 | 2,681 | 2,43,902 | 381 62 | Nos. 4567 / 24-5-94, 4609 / 28-5-94. Nos. 4610 / 28-5-94, 4619A / 28-5-94. Nos. 5269 / 20-6-94, 5312 / 21-6-94. | |
| Surat ... ... | Surat ... ... | | 43,902 | 68 382 | 95 | ... | 43,997 | 68 477 | Nos. 8939 / 5-12-93, 5041 / 11-6-94. | |
| Panch Mahals ... | Panch Mahals ... | | 1,40,156 | 218 636 | 73,431 | 57 | 2,13,530 | 333 410 | Nos. 6026 / 21-8-93, 7215 / 4-10-93. Nos. 2971 / 30-4-94, 4653 / 29-5-94. Nos. 4907B / 7-6-94, 4907C / 7-6-94. | |
| | | Total ... | 6,10,104 | 953 184 | 1,24,414 | 2,897 | 7,31,621 | 1,143 101 | | |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 46A.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Area of Protected Forests, 1893-94.*

| Division. | Civil District or Territory. | Name of Forest. | Area on 1st July 1893. | | Added during the year. | Excluded or transferred to other heads. | Area on 30th June 1894. | | No. and date of Notification of addition or transfer. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Acres. | Equivalent in Square Miles. | Acres. | Acres. | Acres. | Equivalent in Square Miles. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| East Thána ... | Thána ... ... | ... | 208,504 | 325·504 | ... | 535 | 207,969 | 324·609 | Nos. 6797 20-9-93, 7889 26-10-93, 8595A 24-11-93, 1227 15-2-94, 1892B 13-3-94, 2284 29-3-94, 4255 14-5-94, 4358 17-5-94. | |
| West Thána ... | Do. ... ... | ... | 176,216 | 275·216 | ... | 98,786 | 77,430 | 120·630 | Nos. 9013 8-12-93, 4567D 24-5-94, 4619C 28-5-94, | |
| Surat ... ... | Surat ... ... | ... | ... | ... | ... | ... | ... | ... | | |
| Panch Mahals ... | Panch Mahals ... | ... | ... | ... | ... | ... | ... | ... | | |
| | | Total ... | 384,720 | 601·80 | ... | 99,321 | 285,399 | 445·599 | | |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 47.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Statement showing the Progress made in, and the Expenditure incurred on, Forest Settlements during 1893-94.*

| Name of Forest Division. | Name of Civil District or Territory. | Area already settled at commencement of the year. | AREAS FINALLY SETTLED DURING THE YEAR. | | | | | | AREAS UNDERGOING SETTLEMENT. | | | | | | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Number and date of Government order according final sanction to the Settlement. | Name of Forest settled. | Area in Square Miles. | Expenditure incurred during the year on areas finally settled. | | Entire Cost per Square Mile of Areas finally settled during the year. | At commencement of the year. | | Taken in hand during the year. | | Expenditure incurred during the year on Areas undergoing settlement. | | |
| | | | | | | In Forest Accounts. | In other Accounts. | | Name of Tract. | Area in Square Miles. | Name of Tract. | Area in Square Miles. | In Forest Accounts. | In other Accounts. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| *Reserved.* | | Sq. m. | | | | Rs. | Rs. | Rs. | | | | | Rs. | Rs. | |
| East Thána ... ... | Thána ... ... | 310 | 7806 24-10-93. 7962 30-10-93. 7956 30-10-93. 9070 2-12-93. 2683 17-4-94. 4360 17-5-94. 4609 28-5-94. 4610 28-5-94. 4619A. 28-5-94. 4567 24-5-94. 5269 20-6-94. 5312 21-6-94. | Bhiwndi, Kalyán, Sháhápur, Váda and Mokháda. | 7¼ | ... | ... | ... | Murbád ... Sháhápur ... | 25 44¼ | ... | ... | 1,475 | | |
| West Thána ... ... | Do. ... ... | 166 | | Bassein, Dáhánu, Máhim and Sálsette. | 76½ | .... | ... | ... | Dáhánu ... | 109 | Dáhánu. | 109 | 5,551 | 11,038 | |
| | | Sq. m. ac. | | | Acres. | | | | | | | | | | |
| Surat ... ... ... | Surat ... ... | 65 519 | 8939 5-12-93. 5041 11-6-94 | Mándvi ... ... | 96 | ... | ... | ... | ..... | ... | ... | ... | ... | ... | |
| Panch Mahás ... ... | Panch Mahás ... | 219 | 4907B 7-6-94. 4907C 7-6-94. | Dohad and Jhálod ... | 114 | ... | ... | ... | ..... | ... | ... | ... | 45 | ... | |
| | Total ... | M. a. 758 519 | ..... | ..... | M. ac. 197 576 | ... | ... | ... | ..... | 178¼ | ... | 109 | 7,071 | 11,038 | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Protected Forest.* | | | | | | | | | | | | | | | | |
| East Thána ... ... | Thána... ... ... | 17¼ | 6797 20-9-93. 7889 26-10-93. 8505A 24-11-93. 1227 15-2-94. 4255 14-5-94. 4358 17-5-94. 2284 29-3-94. 1892B 13-3-94. | Bhiwndi, Kalyán, Murbád, Shahápur and Váda. | ¾ | ... | ... | ... | Murbád ... Shahápur ... | 98 194¼ | ... | ... | ... | ... |
| West Thána ... ... | Do. ... ... ... | 142 | 4619C 28-5-94. 4567D 24-5-94. 9018 8-12-93. | Dáhánu, Máhim and Sálsette. | 154¼ | ... | ... | ... | Dáhánu ... | 109 | Dáhánu. | 109 | ... | ... |
| | Total ... | 159¼ | ..... | ..... | 155 | ... | ... | ... | ..... | 401¼ | ... | 109 | ... | ... |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.



B 1106—8 N C

## FORM No. 48.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Record of Demarcation and Maintenance of Boundaries during 1893-94.*

| No. | Division. | Length of Boundaries artificially demarcated during the year. | Length of previously existing Boundaries repaired. | Length of previously existing Boundaries not repaired. | Total length of artificially marked Boundaries at the close of the year. | Length of Boundaries not demarcated at the close of the year. | Length of natural Boundaries not requiring artificial marks. | Total length of Boundaries at the close of the year. | Expenditure on Demarcation during the year. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | On new Work. | On Repairs. | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Rs. | Rs. | |
| 1 | East Thána ... ... | 10¼ | 5½ | 1,032¾ | 1,048½ | 77½ | ... | 1,126 | 125 | 65 | |
| 2 | West Thána ... ... | 41½ | 1½ | 388½ | 431½ | 561 | 170 | 1,162½ | 276 | 23 | |
| 3 | Surat ... ... ... | 17¼ | ... | 400¼ | 417½ | 300 | ... | 717½ | *1,906 | ... | Includes Rs. 1,333 on account of Dangs. |
| 4 | Panch Mahála ... ... | 70½ | ... | 405 9/10 | 476 2/5 | 263 1/6 | 79 | 818 17/30 | 515 | ... | |
| | Total ... | 139½ | 7 | 2,227 2/5 | 2,373 9/10 | 1,201⅔ | 249 | 3,824 17/30 | 2,822 | 88 | |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 49.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Statement of Forest Areas Surveyed and under Survey during the year 1893-94.*

| Division. | AREAS SURVEYED AND UNDER SURVEY DURING THE YEAR. | | | | | | | | | | | | | | | | | | | | | | | | AREAS REMAINING TO BE TAKEN UNDER SURVEY. | TOTAL FOREST AREA AT END OF THE YEAR, AS PER FORM No. 46. | COST. | | | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Special surveys—Maps on 4″ scale or over, by Survey of India Department or Forest Survey Branch. | | | | | | | | Ordinary, included in District Surveys. | | | | | | | | Chain and Compass or other Surveys by Local Officers. | | | | | | | | | | | | |
| | With Interior Details. | | | | | Boundary Surveys. | | | With Interior Details. | | | | | Boundary Surveys. | | | With Interior Details. | | | | | Boundary Surveys. | | | | | | | |
| | With Details of growing stock. | | Without Details of growing stock. | | Total Cost. | Previous. | Of the year. | Total Cost. | With Details of growing stock. | | Without Details of growing stock. | | Total Cost. | Previous. | Of the year. | Total Cost. | 4 inch or over. | | Under 4-inch. | | Total Cost. | Previous. | Of the year. | Total Cost. | | | Previous. | Of the year. | Entire cost of all Surveys to end of the year. | |
| | Previous. | Of the year. | Previous. | Of the year. | | | | | Previous. | Of the year. | Previous. | Of the year. | | | | | Previous. | Of the year. | Previous. | Of the year. | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| | | | | Sq. ms. | Rs. | | | | | | | | | | | | | | | | | | | | | | | | |
| East Thána 8″—Detail ... ... | ... | ... | ... | 13 | 4,092 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| West Thána 8″—Detail ... ... | ... | ... | ... | 38 | 7,635 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | ... | ... | ... | 51 | 11,727 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

*Bándra, 15th October 1894.*

## FORM No. 50.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Progress made in Working-Plans, 1893-94.*

| Division. | AREAS FOR WHICH WORKING-PLANS HAVE BEEN COMPLETED. | | AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED. | | Areas for which Working-Plans have still to be taken in hand. | Total Forest area, as in Form No. 46. | Entire cost per square mile, of Working-Plans completed. | REMARKS. |
|---|---|---|---|---|---|---|---|---|
| | At commencement of the year. | During the year. | At commencement of the year. | Taken in hand during the year. | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Sq. m. | Sq. m. | Sq. m. | Sq. m. | Sq. m. | Sq. m. | Rs. | |
| East Thána ... ... | 72 | 120 | 437 | 42 | 395 | 629* | †5,749 | *These figures represent area of forests as scaled and, therefore, they will not compare with figures in Form No. 46.<br>†As the charges are debited in lump, separate figures for each division are not available. |
| West Thána ... ... | ..... | 80 | 366 | 140 | 226 | 446* | | |
| Surat ... ... ... | ..... | ..... | 68·477 | ..... | 68·477 | 68·477 | ..... | |
| Panch Maháls ... ... | ..... | ..... | 333·410 | ..... | 333·410 | 333·410 | ..... | |
| Total ... | 72 | 200 | 1,205·247 | 182 | 1,023·247 | 1,477·247 | 5,749 | |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

# FORM No. 51.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Communications and Buildings during 1893-94.*

| Division. | NEW WORK UNDERTAKEN DURING THE YEAR. | | | | | | REPAIRS EXECUTED DURING THE YEAR. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Buildings. | | Roads and Paths. | | | Total Expenditure on new work. | Buildings. | | Roads and Paths. | | | Total Expenditure on Repairs. | REMARKS. |
| | Description of Building. | Expenditure incurred. | Road or Path and object of the same. | Length of Road or Path. | Expenditure incurred. | | Nature of Repairs. | Expenditure incurred. | Nature of Repairs. | Length repaired. | Expenditure incurred. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | | Rs. | | Miles. | Rs. | Rs. | | Rs. | | Miles. | Rs. | Rs. | |
| East Thána. | *Khardi Range.* | | | | | | | | | | | | |
| | 1 Cattle pound ... | 16 | ..... | ... | ... | 16 | For thatching, &c., 22 Forest guards' huts and 1 hirda depôt. | 69 | ..... | ... | ... | 69 | |
| | 1 Forest guard's hut. | 7 | ..... | ... | ... | 7 | | | | | | | |
| | *Mokhada Range.* | | | | | | For repairing and thatching 9 Forest guards' huts and 2 hirda depôts. | 32 | ..... | .. | ... | 32 | |
| | 3 Cattle pounds ... | 45 | ..... | ... | ... | 45 | For thatching, &c., 22 Forest guards' huts. | 99 | ..... | ... | ... | 99 | |
| | *Shahapur Range.* | | | | | | For repairing roof, &c., of Tánsa Forest bungalow and Forest guard's post. | 302 | ..... | ... | ... | 302 | |
| | 3 Cattle pounds ... | 53 | ..... | ... | ... | 53 | For repairing 6 Forest guards' huts, 3 cattle pounds and 23 Forest guards' huts. | 122 | ..... | ... | ... | 122 | |
| | *Kalyán Range.* | | | | | | For thatching and repairing 9 Forest guards' huts. | 27 | ..... | ... | ... | 27 | |
| | *Bhiwndi Range.* | | | | | | For thatching and repairing 19 Forest guards' huts. | 118 | ..... | ... | ... | 118 | |
| | 1 Cattle pound ... | 5 | ..... | ... | ... | 5 | For thatching and repairing 31 Forest guards' huts. | 103 | ..... | ... | .. | 103 | |
| | *Murbád Range.* | | | | | | | | | | | | |
| | *Vada Range.* | | | | | | | | | | | | |
| | Total ... | 126 | ..... | ... | ... | 126 | | 672 | ..... | ... | ... | 872 | |
| West Thána. | *Bassein Range.* | | | | | | | | | | | | |
| | 1 Cattle pound ... | 2 | ..... | ... | ... | 2 | For thatching, &c., 31 Forest guards' huts. | 77 | ..... | ... | ... | 109 | |
| | *Dahánu Range.* | | | | | | For plastering, white washing, &c., of Parol bungalow. | 32 | ..... | | | | |
| | 1 Cattle pound ... | 8 | ..... | ... | ... | 8 | For thatching 22 Forest guards' huts. | 55 | ..... | ... | ... | 55 | |
| | *Mahim Range.* | | | | | | For thatching 67 Forest guards' huts. | 167 | ..... | ... | ... | 167 | |
| | 4 Cattle pounds ... | 74 | ..... | ... | ... | 74 | For thatching 18 Forest guards' huts. | 45 | ..... | ... | ... | 45 | |
| | *Salsette Range.* | | | | | | For thatching 29 Forest guards' huts. | 68 | ..... | ... | ... | 68 | |
| | 1 Cattle pound ... | 34 | ..... | ... | ... | 34 | | | | | | | |
| | *Umbargaon Range.* | | | | | | | | | | | | |
| | 5 Cattle pounds ... | 107 | ..... | ... | ... | 107 | | | | | | | |
| | Total ... | 225 | ..... | ... | ... | 225 | | 444 | | ... | ... | 444 | |
| Surat. | *Mándvi Range.* | | | | | | | | | | | | |
| | 1 Forest depôt house at Usked Ramkund. | 430 | ..... | ... | ... | 430 | Repairs to Mándvi Range Forest office. | 213 | Repairs to road from Usked Khurd to the bank of Tápti. | 2 | 8 | 226 | |
| | *Chikhli Range.* | | | | | | Turning tiles of Dadvada post. | 2 | | | | | |
| | 1 Forest guard's post at Gandewa. | 61 | ..... | ... | ... | 61 | Turning tiles of Tárápur post. | 1 | | | | | |
| | *Dang Range.* | | | | | | For thatching Khodamba post. | 2 | | | | | |
| | Reconstruction of Garvi bungalow. | 258 | Construction of road from Mahál to Kasarpala. | 5 | 722 | 2,571 | Repairs to Pimpri bungalow. | 4 | Bridge and road repairs from Waghai to Garvi. | 20 | 506 | 886 | |
| | Tiling the Sarowar, Pimpri and Garai bungalows. | 879 | Do. from Bhalkhet to Morupani. | 5 | 101 | | Repairs to Waghai bungalow. | 19 | Do. from Garvi to Pipladevi and Khuluta to Pipladevi. | 4 | 37 | | |
| | Completion of Maheskatri bungalow. | 500 | ..... | ... | ... | | Repairs to Waghai well. | 5 | Do. from Pipladevi to Dewariawan. | 20 | 110 | | |
| | Fencing to Waghai depôt compound. | 57 | ..... | ... | ... | | | | Do. from Kinlipada to Bhalket. | 10 | 108 | | |
| | Wooden curb well at Singana, &c. | 38 | ..... | ... | ... | | | | Do. from Chikhla to Dhongriamba. | 9 | 51 | | |
| | Forest post at Devri. | 6 | ..... | ... | ... | | | | Do. from Mesheskatri to Chalkdera. | 7 | 46 | | |
| | Do. at Bardipada. | 10 | ..... | ... | ... | | | | | | | | |
| | | | | | | | *Balsár Range.* | | | | | | |
| | | | | | | | Repairs to Vejalpur bungalow. | 13 | ..... | ... | ... | 13 | |
| | Total ... | 2,239 | ..... | ... | 823 | 3,062 | | 259 | | ... | 866 | 1,125 | |

FORM No. 51—*continued.*

| Division. | New Work undertaken during the year. | | | | | | Repairs executed during the year. | | | | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Buildings. | | Roads and Paths. | | | Total Expenditure on new work. | Buildings. | | Roads and Paths. | | | Total Expenditure or repairs. | |
| | Description of Building. | Expenditure incurred. | Road or Path and object of the same. | Length of Road or Path. | Expenditure incurred. | | Nature of Repairs. | Expenditure incurred. | Nature of Repairs. | Length repaired. | Expenditure incurred. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | | Rs. | | Miles. | Rs. | Rs. | | Rs. | | Miles. | Rs. | Rs. | |
| Panch Mahals. | Extension of plinth in front of the bungalow at Godhra. | 336 | ..... | ... | ... | 336 | For replacing bamboo walls of stables by bricks and concreting the floors. | 250 | ..... | ... | ... | ... | |
| | Connecting the two bungalows by a brick-path. | 32 | ..... | ... | ... | 32 | Repairs to Forest post in Hálol Range. | 22 | ..... | ... | ... | ... | |
| | Construction of a well in the compound of Divisional Forest Officer's bungalow. | 621 | ..... | ... | ... | 621 | For tursing tiles of the Divisional Forest Officer's bungalow at Godhra and of the rest-house at Achala. | 212 | ..... | ... | ... | 484 | |
| | Total ... | 989 | ..... | ... | ... | 989 | ..... | 484 | ..... | ... | ... | 484 | |
| | Grand Total ... | 3,579 | ..... | ... | 823 | 4,402 | ..... | 2,059 | ..... | ... | 866 | 2,925 | |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

## STATEMENT FORM No. 52.

## FORM No. 52.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Prosecutions for Breaches of Forest Rules during 1893-94.*

| Forest Division and Civil District. | | Cases pending from 1892-93. | New Cases of the Year. | | | | | Total Cases. | Disposed of during the Year. | | | | | | Cases pending at close of year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Injury to Forest by Fire. | Unauthorized felling or appropriation of Wood and Minor Forest Produce. | Grazing without Permission or in Tracts in which Grazing is prohibited. | Other Offences. | Total new Cases of the year. | | Convictions. | | Acquittals. | | Total. | | |
| | | | | | | | | | Cases. | Persons. | Cases. | Persons. | Cases. | Persons. | |
| 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| East Thána ... | A. ... | 43 | 4 | 151 | 5 | 9 | 169 | 212 | 97 | 204 | 55 | 177 | 152 | 381 | 60 |
| | B. ... | ... | 6 | 66 | ... | 15 | 87 | 87 | 87 | 232 | ... | ... | 87 | 232 | ... |
| | C. ... | ... | 234 | 460 | ... | ... | 694 | 694 | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 43 | 244 | 677 | 5 | 24 | 950 | 993 | 184 | 436 | 55 | 177 | 239 | 613 | 60 |
| West Thána ... | A. ... | 12 | 2 | 60 | 1 | 9 | 72 | 84 | 31 | 60 | 31 | 68 | 62 | 128 | 22 |
| | B. ... | ... | ... | 67 | 1 | 9 | 77 | 77 | 77 | 103 | ... | ... | 77 | 103 | ... |
| | C. ... | ... | 126 | 119 | ... | 4 | 249 | 249 | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 12 | 128 | 246 | 2 | 22 | 398 | 410 | 108 | 163 | 31 | 68 | 139 | 231 | 22 |
| Surat ... | A. ... | ... | ... | 1 | 1 | ... | 2 | 2 | 2 | 3 | ... | ... | 2 | 3 | ... |
| | B. ... | ... | ... | 7 | ... | ... | 7 | 7 | 7 | 17 | ... | ... | 7 | 17 | ... |
| | C. ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | ... | ... | 8 | 1 | ... | 9 | 9 | 9 | 20 | ... | ... | 9 | 20 | ... |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Panch Mahâls ... | A. ... | 1 | 1 | 14 | 2 | ... | 17 | 18 | 11 | 27 | 3 | 14 | 14 | 41 | 4 |
| | B. ... | ... | ... | 70 | 1 | 2 | 73 | 73 | 73 | 159 | ... | ... | 73 | 159 | ... |
| | C. ... | ... | ... | 27 | ... | ... | 27 | 27 | ... | ... | ... | ... | ... | ... | ... |
| Total ... | | 1 | 1 | 111 | 3 | 2 | 117 | 118 | 84 | 186 | 3 | 14 | 87 | 200 | 4 |
| *Abstract of the above totals.* | | | | | | | | | | | | | | | |
| A. ... | | 56 | 7 | 226 | 9 | 18 | 260 | 316 | 141 | 294 | 89 | 259 | 230 | 553 | 86 |
| B. ... | | ... | 6 | 210 | 2 | 26 | 244 | 244 | 244 | 511 | ... | ... | 244 | 511 | ... |
| C. ... | | ... | 360 | 606 | ... | 4 | 970 | 970 | ... | ... | ... | ... | ... | ... | ... |
| Grand Total ... | | 56 | 373 | 1,042 | 11 | 48 | 1,474 | 1,530 | 385 | 805 | 89 | 259 | 474 | 1,064 | 86 |

*Bándra,*
*15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

## FORM No. 53.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Area of Forest Tracts protected from Fire during 1893-94.*

| Division. | Forest Tracts. | Year in which protection commenced. | Area protected during 1892-93. | Area attempted to be protected. | Failures. | Area actually protected. | Cost. | REMARKS. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | Acres. | Acres. | Acres. | Acres. | Rs. | |
| East Thána ... | Shaháp ur ... ... | 1878-79 ... | 141,656 | 152,632 | 8,102 | 144,530 | 460 | |
| | Khardi ... ... ... | ,, ... | | | | | | |
| | Mokháda ... ... | ,, ... | 48,831 | 49,423 | 856 | 48,567 | 77 | |
| | Kalyán ... ... ... | ,, ... | 34,951 | 35,423 | 2,787 | 32,636 | 200 | |
| | Murbád ... ... | ,, ... | 89,174 | 90,288 | 1,802 | 88,486 | 187 | |
| | Bhiwndi ... ... | ,, ... | 45,303 | 47,915 | 2,611 | 45,304 | 260 | |
| | Váda ... ... ... | ,, ... | 73,526 | 76,226 | 1,542 | 74,684 | 336 | |
| | Total ... | ..... | 433,441 | 451,907 | 17,700 | 434,207 | 1,520 | |
| West Thána ... | Sálsette ... ... ... | 1878-79 ... | 15,137 | 15,671 | 1,578 | 14,093 | 207 | |
| | Bassein ... ... ... | ,, ... | 53,320 | 54,630 | 2,137 | 52,493 | 423 | |
| | Máhim ... ... ... | ,, ... | 125,354 | 74,108 | 2,487 | 71,621 | 735 | |
| | Dáhánu ... ... ... | ,, ... | 159,446 | 102,935 | 444 | 102,457 | 594 | |
| | Umbargaon ... ... | ,, ... | | | 34 | | 551 | |
| | Total ... | ...s. | 353,257 | 247,344 | 6,680 | 240,664 | 2,520 | |
| Surat ... ... | Dángs ... ... ... | 1878-79 ... | 2,000 | 434,240 | 432,240 | 2,000 | | |
| | Mándvi ... ... ... | ,, ... | 38,818 | 41,164 | 11,491 | 29,673 | | |
| | Balsár ... ... ... | ,, ... | 985 | 985 | 1 | 984 | 380 | |
| | Párdi ... ... ... | ,, ... | 573 | 573 | ... | 573 | | |
| | Chikhli ... ... ... | ,, ... | 825 | 825 | ... | 825 | | |
| | Bárdoli ... ... ... | ,, ... | 450 | 450 | 15 | 435 | | |
| | Total ... | ..... | 43,151 | 478,237 | 443,747 | 34,490 | 380 | |
| Panch Maháls .. | Godhra ... ... ... | 1878-79 ... | 87,932 | 89,351 | 6,914 | 82,437 | 5 | |
| | Kálol ... ... ... | ,, ... | 21,026 | 22,262 | 2,665 | 19,597 | 2 | |
| | Hálol ... ... ... | ,, ... | 27,746 | 28,495 | 4,735 | 23,760 | 18 | |
| | Dohad ... ... ... | ,, ... | 46,275 | 46,545 | 2,962 | 43,583 | 17 | |
| | Jhálod ... ... ... | ,, ... | 26,652 | 26,877 | ... | 26,877 | 27 | |
| | Total ... | ..... | 209,631 | 213,530 | 17,276 | 196,254 | 69 | |
| | Grand Total ... | ..... | 1,039,480 | 1,391,018 | 485,403 | 905,615 | 4,489 | |

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

*Bándra, 15th October 1894.*

# FORM No. 54

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Area closed and open to Grazing during 1893-94.*

| Division. | Area in square miles. | | | | | | Remarks. |
|---|---|---|---|---|---|---|---|
| | Closed to all animals. | | Closed to browsers (camels, goats or sheep). | | Open to all animals. | Total Area. | |
| | Whole year. | Part of year. | Whole year. | Part of year. | Whole year. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| *East Thána.* | | | | | | | |
| Sháhápur ... ... | 22 | ... | 245½ | ... | ... | 245½ | |
| Khardi ... ... | | | | | | | |
| Mokháda ... ... | 2¾ | ... | 49¼ | ... | ... | 49¼ | |
| Murbád ... ... | 4½ | ... | 140¾ | ... | ... | 140¾ | |
| Kalyán ... ... | 8 | ... | 54¾ | ... | ... | 54¾ | |
| Bhiwandi ... ... | 8¼ | ... | 75 | ... | ... | 75 | |
| Váda ... ... ... | 8½ | ... | 119 | ... | ... | 119 | |
| Total ... | 54 | ... | 684¼ | ... | ... | 684¼ | |
| *West Thána.* | | | | | | | Area open to all animals except browsers is shown below— |
| Sálsette ... ... | 9 | ... | 24 | ... | ... | 24 | 15 |
| Bassein ... ... | 13 | ... | 84 | ... | ... | 84 | 71 |
| Máhim ... ... | 21 | ... | 116 | ... | ... | 116 | 95 |
| Dáhánu ... ... | 26 | ... | 172 | ... | ... | 172 | 146 |
| Umbargaon ... ... | 5 | ... | 77 | ... | ... | 77 | 72 |
| Total ... | 74 | ... | 473 | ... | ... | 473 | 399 |
| *Surat.* | | | | | | | |
| Dángs ... ... ... | ... | ... | ... | ... | 678 | 678 | |
| Mándvi ... ... | 27 | 37 | 64 | ... | ... | 64 | |
| Bulsár... ... ... | ¼ | 1¾ | 2¼ | ... | ... | 2¼ | |
| Chikhli ... ... | ½ | 1½ | 2 | ... | ... | 2 | |
| Total ... | 28 | 40¼ | 68¼ | ... | 678 | 746¼ | |
| *Panch Maháls.* | | | | | | | |
| Godhra ... ... | 49 | 91 | 140 | ... | ... | 140 | |
| Kálol ... ... ... | 11 | 24 | 35 | ... | ... | 35 | |
| Hálol ... ... ... | 16 | 28 | 44 | ... | ... | 44 | |
| Dohad ... ... ... | 24 | 49 | 73 | ... | ... | 73 | |
| Jhálod... ... .. | 13 | 29 | 42 | ... | ... | 42 | |
| Total ... | 113 | 221 | 334 | ... | ... | 334 | |
| Grand Total ... | 269 | 261¼ | 1,559½ | ... | 678 | 2,237½ | 399 |

R. C. WROUGHTON,
Deputy Conservator of Forests,
Northern Circle.

*Bándra, 15th October 1894.*

FORM No. 55.

FOREST DEPARTMENT, NORTHERN CIRCLE.

*Return of Grazing in the State Forests during 1893-94.*

| Division. | GRAZING ON PAYMENT—NUMBER OF ANIMALS. | | | | | | | | | | | | | GRAZING FREE—NUMBER OF ANIMALS. | | | | | | | | | | | | Grand Total of Value at full Rates. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | At full Rates. | | | | | | At privileged Rates. | | | | | | | By right under Settlement. | | | | | | During pleasure of Government, or otherwise than under Settlement. | | | | | | Total Value of Fees at full Rates. | |
| | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other Animals. | Fees received. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other Animals. | Fees received | | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other Animals. | Value of Fees at full Rates. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other Animals. | Value of Fees at full Rates. | | |
| | | | | | | | | | | | | Actual. | Value at full Rates. | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | | | | | | Rs. | | | | | | Rs. | Rs. | | | | | | Rs. | | | | | | Rs. | Rs. | Rs. |
| East Thána ... | 125 | 3,855 | ... | ... | 4 | 2,566 | 727 | 4,484 | ... | ... | 26 | 1,250 | 3,667 | ... | ... | ... | ... | ... | ... | 20,921 | 67,236 | 3,544 | ... | 1,179 | 51,099 | 51,099 | 57,332 |
| West Thána ... | ... | 507 | ... | ... | ... | 317 | 29 | 448 | ... | ... | ... | 91 | 316 | 4,224 | 26,333 | ... | ... | 95 | 9,008 | 17,277 | 78,189 | 11,100 | ... | 445 | 62,706 | 71,714 | 72,347 |
| Surat ... ... | 652 | 4,281 | ... | ... | ... | 1,405 | 53 | 134 | ... | ... | ... | 45 | 147 | 131 | 352 | ... | ... | ... | 153 | ... | ... | ... | ... | ... | ... | 153 | 1,705 |
| Panch Mahális ... | 997 | 2,849 | 3 | ... | ... | 2,672 | 953 | 5,143 | 40 | ... | ... | 633 | 3,533 | ... | ... | ... | ... | ... | ... | 6,322 | 66,430 | ... | ... | ... | 7,755 | 7,755 | 13,960 |
| Total ... | 1,774 | 11,492 | 3 | ... | 4 | 6,960 | 1,762 | 10,209 | 40 | ... | 26 | 2,019 | 7,663 | 4,355 | 26,685 | ... | ... | 95 | 9,161 | 44,520 | 211,855 | 14,644 | ... | 1,624 | 121,560 | 130,721 | 145,344 |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

# FORM No. 56.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Area of Plantations, 1893-94.*

| Division. | Name of Plantation. | Area in Acres. | | | | Receipts. | Charges. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | On 1st July 1893. | Added during the year. | Excluded during the year. | Area on 30th June 1894. | Of the year. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | *Regular Plantations.* | | | | | Rs. | Rs. | |
| East Thána ... | Bhiwndi ... ... ... | 224 | 16 | 30 | 210 | ... | 24 | |
| | Mokháda ... ... ... | 85 | 5 | ... | 90 | ... | 7 | |
| | Shaháp ur ... ... ... | 120 | 23 | 61 | 82 | ... | 88 | |
| | Khardi ... ... ... | 44 | 27 | 15 | 56 | ... | 10 | |
| | Kalyán ... ... ... | 88 | 16 | 11 | 93 | ... | 20 | |
| | Murbád ... ... ... | 31 | 23 | ... | 54 | ... | 11 | |
| | Váda ... ... ... | 92 | ... | ... | 92 | ... | 59 | |
| | Total ... | 684 | 110 | 117 | 677 | ... | 219 | |
| West Thána ... | Sálsette ... ... ... | 130 | 14 | ... | 144 | ... | 16 | |
| | Bassein ... ... ... | 2 | ... | ... | 2 | ... | ... | |
| | Máhim ... ... ... | 1,880 | 11 | *1,880 | 11 | ... | 13 | *Vide* paragraph 76 of the report. |
| | Dáhánu ... ... ... | 4 | ... | .. | 4 | ... | 5 | |
| | Umbargaon ... ... | 130 | 2 | ... | 132 | ... | 43 | |
| | Total ... | 2,146 | 28 | ... | 293 | ... | 77 | |
| Surat ... ... | ..... | ... | ... | ... | ... | ... | ... | |
| Panch Mahals ... | Godhra ... ... ... | ... | 60 | ... | 60 | ... | 29 | |
| | Kálol ... ... ... | 499 | ... | ... | 499 | ... | ... | |
| | Hálol ... ... ... | 14 | ... | ... | 14 | ... | ... | |
| | Total ... | 513 | 60 | ... | 573 | ... | 29 | |
| | Total Regular Plantations. | 3,343 | 209 | 1,997 | 1,543 | ... | 325 | |
| | *Cultural Operations.* | | | | | | | |
| East Thána ... | Bhiwndi ... ... ... | 844 | 114 | ... | 958 | ... | ... | |
| | Mokháda ... ... ... | 683 | 10 | ... | 693 | ... | ... | |
| | Shaháp ur ... .. ... | 940 | 170 | ... | 1,110 | ... | ... | |
| | Khardi ... ... ... | 534 | 183 | ... | 717 | ... | ... | |
| | Kalyán ... ... ... | 1,355 | 374 | ... | 1,729 | ... | ... | |
| | Murbád ... ... ... | 773 | 135 | ... | 908 | ... | ... | |
| | Váda ... ... ... | 2,948 | 258 | ... | 3,206 | ... | ... | |
| | Total ... | 8,077 | 1,244 | ... | 9,321 | ... | ... | |
| West Thána ... | Sálsette ... ... ... | 789 | 302 | ... | 1,091 | ... | 59 | |
| | Bassein ... ... ... | 5,403 | 1,128 | ... | 6,531 | ... | 179 | |
| | Máhim ... ... ... | 6,554 | 1,739 | ... | 8,293 | ... | 156 | |
| | Dáhánu ... ... ... | 6,507 | 2,349 | ... | 8,856 | ... | 74 | |
| | Umbargaon ... ... | 2,311 | 864 | ... | 3,175 | ... | 90 | |
| | Total ... | 21,564 | 6,382 | ... | 27,946 | ... | 558 | |
| Surat ... ... | Dángs ... ... ... | 7 | 1 | ... | 8 | ... | 17 | |
| | Mándvi ... ... ... | 806 | 41 | ... | 847 | ... | 144 | |
| | Bulsár ... ... ... | 234 | 33 | ... | 267 | ... | 1,145 | |
| | Chikhli ... ... ... | 232 | 53 | ... | 285 | ... | 81 | |
| | Párdi ... ... ... | 101 | 35 | ... | 136 | ... | ... | |
| | Chorási ... ... ... | ... | 3 | ... | 3 | ... | 3 | |
| | Total ... | 1,380 | 166 | ... | 1,546 | ... | 1,390 | |
| | Total Cultural Operations . | 31,021 | 7,792 | ... | 38,813 | ... | 1,948 | |
| | *Add*—Total Regular Plantations ... ... ... | 3,343 | 209 | 1,997 | 1,543 | ... | 325 | |
| | Grand Total ... | 34,364 | 8,001 | 1,997 | 40,356 | ... | 2,273 | |

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

*Bándra, 15th October 1894.*

B 1106—11 N C.

## FORM No. 57.

### FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Outturn (in cubic feet, solid) of Timber and Fuel during the year 1893-94 and Agency of Exploitation.*

| Division. | TIMBER IN THE ROUGH; LOGS. | | | | | TIMBER IN THE ROUGH; POLES. | | | | | SAWN OR SQUARED TIMBER. | | | | | MISCELLANEOUS. | | | | | FUEL. | | | | | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Outturn. |
| | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. |
| East Thána ... | ... | ... | ... | ... | ... | 3,351 | 684,334 | 4,842 | ... | 692,527 | ... | ... | ... | ... | ... | ... | Timber 903,922 Bamboos No. 13,745. Bamboos Cart-loads 494 Bamboos Head-loads 878 | ... | ... | Timber 903,922 Bamboos No. 13,745 Bamboos Cart-loads 494 Bamboos Head-loads 878 | 1,106 | 2,027,885 | ... | ... | 2,028,991 | Timber and fire-wood 3,625,440 Bamboos No. 13,745 Bamboos Cart-loads 494 Bamboos Head-loads 878 |
| West Thána... | ... | ... | ... | ... | ... | 2,423 | 1,667,706 | 171 | ... | 1,670,300 | ... | ... | ... | ... | ... | ... | Bomboos No. 2,332,393 Bamboos Cart-loads 7,166 Bamboos Head-loads 2,451 | ... | ... | Bomboos No. 2,332,393 Bamboos Cart-loads 7,166 Bamboos Head-loads 2,451 | 9,255 | 3,114,100 | ... | ... | 3,123,355 | Timber and fire-wood 47,93,655 Bamboos No. 2,332,393 Bamboos Cart-loads 7,166 Bamboos Head-loads 2,451 |
| Surat ... ... ... | 62,523 | 58,844 | ... | ... | 121,367 | ... | 12,790 | ... | ... | 12,790 | ... | ... | ... | ... | ... | ... | Bamboos No. 855,710 Ganjas 3,055 Paranas 41,516 Pipes 789 | ... | ... | Bamboos No. 855,710 Ganjas 3,055 Paranas 41,516 Pipes 789 | ... | 14,822 | ... | ... | 14,822 | Timber and fire-wood 148,979 Bamboos No. 855,710 Ganja 3,055 Paranas 41,516 Pipes 789 |
| Panch Mahals. | 862 | 27,049 | 1,744 | ... | 29,655 | 2,848 | 168,196 | 1,288 | ... | 172,332 | ... | ... | ... | ... | ... | ... | Bamboos No. 117,205 Bamboos Cart-loads 135 | ... | ... | Bamboos No. 117,205 Bamboos Cart-loads 135 | 11,375 | 415,696 | ... | ... | 427,071 | Timber and fire-wood 629,058 Bamboos No. 117,205 Bamboos Cart-loads 135 |
| Total ... | 63,385 | 85,893 | 1,744 | ... | 151,022 | 8,622 | 2,533,026 | 6,301 | ... | 2,547,949 | ... | ... | ... | ... | ... | ... | Timber 903,922 Bamboos No. 3,319,053 Bamboos Cart-loads 7,795 Bamboos Head-loads 3,329 Ganjas 3,055 Paranas 41,516 Pipes 789 | ... | ... | Timber 903,922 Bamboos No. 3,319,053 Bamboos Cart-loads 7,795 Bamboos Head-loads 3,329 Ganjas 3,055 Paranas 41,516 Pipes 789 | 21,736 | 5,572,503 | ... | ... | 5,594,239 | Timber and fire-wood 9197,132 Bamboos No. 3,319,053 Bamboos Cart-loads 7,795 Bamboos Head-loads 3,329 Ganjas 3,055 Paranas 41,516 Pipes 789 |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

# FORM No. 58.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Outturn of Minor Forest Produce.*

| Division. | Description of Produce. | PRODUCE REMOVED OR UTILIZED. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | By Government Agency. | | By Purchasers. | | By free-grants. | | By right holders. | | Total. | |
| | | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. |
| | | | Rs. | | Rs. | | Rs. | | Rs. | | Rs. |
| East Thána. | Myrabolams ... ... .. | ... | ... | ... | 1,713 | ... | ... | ... | ... | ... | 1,713 |
| | Karvi ... ... Cart-loads. | ... | ... | 1,310 | 350 | ... | ... | ... | ... | 1,310 | 350 |
| | Do. ... ... Head-loads. | ... | ... | 1,343 | 42 | ... | ... | ... | ... | 1,343 | 42 |
| | Thorn ... ... Cart-loads. | ... | ... | 28 | 28 | ... | ... | ... | ... | 28 | 28 |
| | Do. ... ... Head-loads. | ... | ... | 85 | 4 | ... | ... | ... | ... | 85 | 4 |
| | Bauhina racemosa ... ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... |
| | Terminalia belerica nuts ... | ... | ... | ... | 592 | ... | ... | ... | ... | ... | 592 |
| | Miscellaneous ... ... ... | ... | ... | ... | 18 | ... | ... | ... | ... | ... | 18 |
| | Total ... | ... | .. | ... | 2,747 | ... | ... | ... | ... | ... | 2,747 |
| West Thána. | Limestones ... Cart-loads. | ... | ... | 605 | 118 | ... | ... | ... | ... | 605 | 118 |
| | Stones ... ... Do. | ... | ... | 125 | 24 | ... | ... | .. | ... | 125 | 24 |
| | Karvi ... ... Do. | ... | ... | 1,822 | ... | ... | ... | ... | ... | 1,822 | ... |
| | Do. ... ... Head-loads. | ... | ... | 6,701 | 828 | ... | ... | ... | ... | 6,701 | 828 |
| | Grass for ash manure ... Cart-loads. | ... | ... | 2,000 | 125 | ... | ... | ... | ... | 2,000 | 125 |
| | Brab tree leaves ... ... | ... | ... | ... | 1,313 | ... | ... | ... | ... | ... | 1,313 |
| | Miscellaneous ... ... ... | ... | | ... | 28 | ... | ... | ... | ... | ... | 28 |
| | Total ... | ... | ... | ... | 2,436 | ... | ... | ... | ... | ... | 2,436 |
| Surat. | Mhowra flowers and seeds ... ... Maunds. | ... | ... | 9,024 | 575 | ... | ... | ... | ... | 9,024 | 575 |
| | Date palm trees ... Nos. | ... | ... | 213 | 213 | ... | ... | ... | ... | 213 | 213 |
| | Karanj seeds ... Maunds. | ... | ... | 220 | 15 | ... | ... | ... | ... | 220 | 15 |
| | Reeds and chhajgrass. Carts. | ... | ... | 1,538 | 396 | ... | ... | ... | ... | 1,538 | 396 |
| | Honey ... ... Seers. | ... | ... | 441 | 5 | ... | ... | ... | ... | 441 | 5 |
| | Wax ... ... ... Do. | ... | ... | 109 | 1 | ... | ... | ... | ... | 109 | 1 |
| | Ashindra leaves ...Bundles. | ... | ... | 2,83,525 | 39 | ... | ... | ... | ... | 2,83,525 | 39 |
| | Different kinds of bamboo articles ... Nos. | ... | ... | 46,435 | 913 | ... | ... | ... | ... | 46,435 | 913 |
| | Miscellaneous ... ... ... | ... | ... | ... | 5 | ... | ... | ... | ... | ... | 5 |
| | Total ... | ... | | ... | 2,162 | ... | ... | ... | ... | ... | 2,162 |
| Panch Mahals. | Mhowra flowers ... .. | ... | ... | ... | 495 | ... | ... | ... | ... | ... | 495 |
| | Thorns ... ... Cart-loads. | ... | ... | 40 | 16 | ... | ... | ... | ... | 40 | 16 |
| | Stones ... ... Do. | ... | ... | 29 | 55 | ... | ... | ... | ... | 29 | 55 |
| | Miscellaneous ... ... ... | ... | ... | ... | 17 | ... | ... | ... | ... | ... | 17 |
| | Total ... | ... | ... | ... | 583 | ... | ... | ... | ... | ... | 583 |
| | Grand Total ... | ... | ... | ... | 7,928 | ... | ... | ... | ... | ... | 7,928 |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

# FORM No. 59.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1893-94.*

| Particulars. | Number or Quantity. | Cubic feet. | TOTAL OF EACH HEAD. Number or Quantity. | TOTAL OF EACH HEAD. Cubic feet. | Particulars. | Number or Quantity. | Cubic feet. | TOTAL OF EACH HEAD. Number or Quantity. | TOTAL OF EACH HEAD. Cubic feet. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | **TIMBER.** | | | | |
| *Balance at the commencement of the year.* | | | | | *Sold locally.* | | | | |
| West Thána... Teak pieces ... ... | 310 | 930 | ... | ... | Teak pieces including beams, logs, &c.... | 5,661 | 36,169 | ... | ... |
| West Thána... Junglewood pieces ... | 138 | 414 | 448 | 1,344 | Do. rafters and poles ... ... ... | 8,228 | 11,828 | ... | ... |
| | | | | | Junglewood pieces and rafters ... ... | 582 | 1,564 | ... | ... |
| Surat... Teak pieces ... ... | 513 | 643 | ... | ... | Mixed timber pieces ... .. ... ... | 1,093 | 3,279 | ... | ... |
| Surat... Junglewood pieces and rafters ... ... .. | 182 | 546 | ... | ... | Timber pieces of Haladwan ... ... | 7 | 263 | ... | ... |
| Surat... Timber pieces of Kilái ... | 11 | 278 | ... | ... | Do. Sádara ... ... ... | 3 | 109 | 15,574 | 53,212 |
| Surat... Do. Bondaro. | 11 | 292 | ... | ... | | | | | |
| Surat... Do. Kánti ... | 16 | 322 | ... | ... | *Balance at the close of the year.* | | | | |
| Surat... Do. Sádara ... | 46 | 737 | ... | ... | | | | | |
| Surat... Do. Beo ... | 15 | 298 | ... | ... | East Thána... Mixed timber pieces ... | 24 | 72 | 24 | 72 |
| Surat... Do. Khair ... | 3 | 34 | ... | ... | | | | | |
| Surat... Do. Sissum... | 1 | 17 | ... | ... | West Thána. Teak pieces... ... ... | 560 | 1,680 | ... | ... |
| Surat... Do. Haladvan | 20 | 540 | 818 | 3,767 | West Thána. Junglewood pieces ... | 81 | 245 | 641 | 1,925 |
| Panch Mahals Teak pieces ... ... | 482 | 240 | ... | ... | | | | | |
| Panch Mahals ,, rafteres ... ... | 1,430 | 420 | ... | ... | Surat ... Teak pieces including beams, &c. ... ... | 2,637 | 11,471 | ... | ... |
| Panch Mahals Junglewood pieces ... | 136 | 160 | 2,048 | 820 | Surat ... Teak rafters ... ... | 7,000 | 7,745 | ... | ... |
| | | | | | Surat ... Junglewood pieces... ... | 141 | 393 | ... | ... |
| | | | | | Surat ... Timber pieces of Kilai ... | 11 | 278 | ... | ... |
| Total Balance ... | ... | ... | 3,314 | 5,871 | Surat ... Do. Bondaro . | 11 | 292 | ... | ... |
| | | | | | Surat ... Do. Sadara ... | 43 | 628 | ... | ... |
| *Received from Forests in Depôts.* | | | | | Surat ... Do. Haladwan | 13 | 277 | ... | ... |
| | | | | | Surat ... Do. Kanti ... | 16 | 322 | ... | ... |
| Teak pieces including beams, logs, &c.... | 7,648 | 47,865 | ... | ... | Surat ... Do. Beo ... | 15 | 298 | ... | ... |
| Teak rafters and poles ... ... ... | 14,147 | 19,565 | ... | ... | Surat ... Do. Khair ... | 11 | 117 | ... | ... |
| Mixed Timber pieces... ... ... ... | 1,117 | 3,351 | ... | ... | Surat ... Do. Sissum ... | 1 | 17 | ... | ... |
| Junglewood pieces and rafters ... ... | 461 | 1,038 | ... | ... | Surat ... Do. Tanach ... | 116 | 105 | 10,015 | 21,883 |
| Timber pieces of Khair ... ... ... | 8 | 83 | ... | ... | | | | | |
| Do. Tanach ... ... ... | 116 | 105 | 23,497 | 72,007 | Panch Mahals. Teak pieces including beams ... | 95 | 289 | ... | ... |
| | | | | | Panch Mahals. Do. rafters and poles ... | 349 | 412 | ... | ... |
| | | | | | Panch Mahals. Junglewood pieces ... | 113 | 85 | 557 | 786 |
| | | | | | Total Balance ... | ... | ... | 11,237 | 24,666 |
| Total Timber ... | ... | ... | 26,811 | 77,878 | Total Timber ... | ... | ... | 26,811 | 77,878 |
| | | | | | **FIREWOOD.** | | | | |
| *Balance in hand at the commencement of the year.* | | | | | | Khandies. | | Káhndies. | |
| West Thána ... ... ... ... ... | 180 | 2,250 | ... | ... | Sold during the year ... ... ... | 1,227 | 20,831 | 1,227 | 20,831 |
| Panch Mahals ... ... ... ... ... | 92 | 2,300 | 272 | 4,550 | | | | | |
| | | | | | *Balance at the close of the year.* | | | | |
| *Received during the year.* | Khándis. | | Khándis. | | | | | | |
| East Thána ... ... ... ... ... | 88 | 1,106 | ... | ... | West Thána ... ... ... ... ... | 8 | 100 | ... | ... |
| West Thána ... ... ... ... ... | 743 | 9,255 | ... | ... | Panch Mahals ... ... ... ... ... | 119 | 5,355 | 127 | 5,455 |
| Panch Mahals ... ... ... ... ... | 251 | 11,375 | 1,082 | 21,736 | | | | | |
| Total Firewood ... Khandies. | ... | ... | 1,354 | 26,286 | Total Firewood ... Khandies | ... | ... | 1,354 | 26,286 |
| | | | | | **BAMBOOS.** | | | | |
| Balance at the commencement of the year in the Surat Division ... ... ... | 600 | ... | 600 | ... | Written off as they were washed away to the sea owing to a heavy flood ... | 600 | ... | 600 | ... |
| Received during the month ... ... | ... | ... | ... | ... | Balance at the close of the year... ... | ... | ... | ... | ... |
| Total ... | ... | ... | 600 | ... | Total ... | ... | ... | 600 | ... |
| | | | | | **SEEDS.** | | | | |
| *Balance at the commencement of the year* | K. m. lbs. | | K. m. lbs. | | | K. m. lbs. | | K. m. lbs. | |
| East Thána ... ... ... ... ... | 44 24 22 | ... | ... | ... | Used up during the year ... ... ... | 78 14 2 | ... | 78 14 2 | ... |
| Panch Mahals ... ... ... ... ... | 7 3 5 | ... | 51 27 27 | ... | | | | | |
| *Received during the year.* | | | | | *Balance at the close of the year.* | | | | |
| East Thána ... ... ... ... ... | 59 25 1 | ... | ... | ... | East Thána ... ... ... ... .. | 47 15 1 | ... | ... | ... |
| Panch Mahals ... ... ... ... .. | 17 23 16 | ... | 77 20 17 | ... | Panch Mahals ... ... ... ... ... | 3 19 13 | ... | 51 6 14 | ... |
| Total ... | ... | ... | 129 20 16 | ... | Total ... | ... | ... | 129 20 16 | ... |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, N. C.

# FORM No. 60.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1893-94.*

| Description of Timber and other Produce. | On hand at commencement of the year. | | | On hand at close of the year. | | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | Number. | Cubic feet. | Value. | Number. | Cubic feet. | Value. | In favour of the year. | Against the year. | |
| | | | Rs. | | | Rs. | Rs. | Rs. | |
| *East Thána.* | Kh. Mds. lbs. | | | Kh. Mds. lbs. | | | | | |
| Miscellaneous seeds ... | 44 24 22 | ... | ... | 47 15 1 | ... | ... | ... | ... | |
| Mixed timber pieces... ... | ... | ... | ... | 24 | 72 | 5 | 5 | ... | |
| Total ... | ... | ... | ... | ... | ... | 5 | 5 | ... | |
| *West Thána.* | | | | | | | | | |
| Teak pieces ... ... ... | 310 | 930 | 50 | 560 | 1,680 | 200 | ... | ... | |
| Junglewood pieces ... ... | 138 | 414 | 20 | 81 | 245 | 40 | ... | ... | |
| Firewood khandies ... | 180 | 2,250 | 80 | 8 | 100 | 2 | ... | ... | |
| Total ... | ... | ... | 150 | ... | ... | 242 | 92 | ... | |
| *Surat.* | | | | | | | | | |
| Teak pieces including beams, rafters, &c. ... ... | 513 | 643 | 125 | 9,637 | 19,216 | 14,000 | ... | ... | |
| Junglewood pieces ... ... | 305 | 3,064 | 525 | 378 | 2,667 | 525 | ... | ... | |
| Total ... | ... | ... | 650 | ... | ... | 14,525 | 13,875 | ... | |
| *Panch Mahâls.* | | | | | | | | | |
| Teak pieces including beams. | 482 | 240 | } | 92 | 289 | 91 | ... | ... | |
| Teak rafters and poles ... | 1,430 | 420 | } 100 | 349 | 412 | 77 | ... | ... | |
| Junglewood pieces ... ... | 136 | 90 | } | 113 | 85 | 40 | ... | ... | |
| Firewood khandies ... ... | 92 | 2,300 | 87 | 119 | 5,355 | 25 | ... | ... | |
| | Kh. Mds. lbs. | | | Kh. Mds. lbs. | | | | | |
| Miscellaneous seeds ... ... | 7 3 5 | ... | ... | 3 19 13 | ... | ... | ... | ... | |
| Total ... | ... | ... | 187 | ... | ... | 233 | 46 | ... | |
| Grand Total ... | ... | ... | 987 | ... | ... | 15,005 | 14,018 | ... | |

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

*Bándra, 15th October 1894.*

B 1106—12 N. C.

# FORM No. 60A.

## FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Abstract showing the Value of Live and Dead Stock for the year 1893-94.*

| Description of Live and Dead Stock. | On hand at commencement of the Year. | | On hand at close of the Year. | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|
| | No. | Value. | No. | Value. | In favor of the year. | Against the year. | |
| *Direction.* | | Rs. | | Rs. | Rs. | Rs. | |
| Office tent ... ... | 1 | 420 | 1 | 420 | ... | ... | |
| Tools, plant and office furniture ... | ... | 280 | ... | 408 | ... | ... | |
| Total ... | ... | 700 | ... | 828 | 128 | ... | |
| *East Thána Division.* | | | | | | | |
| Office tent ... ... | 1 | 433 | 1 | 433 | ... | ... | |
| Small routies ... ... | 2 | 186 | 2 | 186 | ... | ... | |
| Great coats ... ... | 201 | 1,309 | 201 | 1,309 | ... | ... | |
| Tools, plant and office furniture ... | ... | 930 | ... | 930 | ... | ... | |
| Tansa Forest Bungalow ... | 1 | 1,871 | 1 | 1,871 | ... | ... | |
| Forest Depôt house at Vásind ... | ... | ... | 1 | 1,173 | ... | ... | |
| Do. at Atgaon ... | ... | ... | 1 | 1,061 | ... | ... | |
| Do. at Vángni ... | ... | ... | 1 | 1,173 | .. | ... | |
| Do. at Kasara ... | ... | ... | 1 | 1,061 | ... | ... | |
| Total ... | ... | 4,729 | ... | 9,197 | 4,468 | ... | |
| *West Thána Division.* | | | | | | | |
| Parel Bungalow ... ... | 1 | 1,200 | 1 | 1,200 | ... | ... | |
| Forest Depôt house at Mándvi ... | 1 | 250 | 1 | 250 | ... | ... | |
| Do. Manikapur.. | 1 | 603 | 1 | 603 | ... | ... | |
| Forest Stations ... ... | 38 | 570 | 38 | 570 | ... | ... | |
| Forest Posts ... ... | 82 | 840 | 82 | 840 | ... | ... | |
| Forest Depôt house at Pálghar ... | 1 | 1,083 | 1 | 1,083 | ... | ... | |
| Do. Manor ... | 1 | 1,083 | 1 | 1,083 | ... | ... | |
| Do. Sawta ... | 1 | 1,083 | 1 | 1,083 | ... | ... | |
| Do. Sanján ... | 1 | 1,083 | 1 | 1,083 | ... | ... | |
| Do. Wangaon... | ... | ... | 1 | 1,053 | ... | ... | |
| Office tent ... ... ... ... | 1 | 433 | 1 | 433 | ... | ... | |
| Small routies ... ... ... | *2 | 188 | 1 | 94 | ... | ... | *1 transferred to Kolába Division. |
| Great coats... ... ... ... | 226 | 1,359 | 226 | 1,359 | ... | ... | |
| Tools, plant and office furniture ... | ... | 2,463 | ... | 2,480 | ... | ... | |
| Total ... | ... | 12,238 | ... | 13,214 | 976 | ... | |
| *Surat Division.* | | | | | | | |
| *Office tent* ... ... | 1† | 246 | ... | ... | ... | ... | †Unserviceable and not sellable. |
| Do. ... ... | 1 | 423 | 1 | 433 | ... | ... | |
| Andhatri Bungalow ... ... | 1 | 291 | 1 | 291 | ... | ... | |
| Dhádáváda do. ... ... | 1 | 80 | 1 | 80 | ... | ... | |
| Tárápur ... ... ... | 1 | 100 | 1 | 100 | ... | ... | |

FORM No. 60A—*continued.*

| Description of Live and Dead Stock. | On hand at commencement of the Year. | | On hand at close of the Year. | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|
| | No. | Value. | No. | Value. | In favor of the year. | Against the year. | |
| | | Rs. | | Rs. | Rs. | Rs. | |
| *Surat Division*—continued. | | | | | | | |
| Large Bungalow at Wághai ... | 1 | 1,099 | 1 | 1,039 | ... | ... | |
| Small do. do. ... | 1 | | 1 | | | | |
| Large Bungalow at Pimpri ... | 1 | 499 | 1 | 499 | ... | ... | |
| Do. Gárvi ... | 1 | 1,012 | 1 | 1,012 | ... | ... | |
| Small do. ... ... | 1 | 288 | 1 | 288 | ... | ... | |
| Great coats ... ... | 65 | 455 | 65 | 455 | ... | ... | |
| Gandiva Post ... ... | ... | ... | 1 | 61 | ... | ... | |
| Sarowar Bungalow ... ... | ... | ... | 1 | 2,379 | ... | ... | |
| Mheskatri do. ... ... | .... | ... | 1 | 1,500 | ... | ... | |
| Tools, plant and office furniture ... | ... | 1,837 | ... | 1,747 | ... | ... | |
| Total ... | ... | 6,340 | ... | 9,944 | 3,604 | ... | |
| *Panch Mahál Division.* | | | | | | | |
| Rest-houses and Depôts ... | 45 | 2,525 | 45 | 2,525 | ... | ... | |
| Bungalow at Godhra... ... | 1 | 8,200 | 1 | 8,200 | ... | ... | |
| Office tent ... ... | 1 | 433 | 1 | 433 | ... | ... | |
| Great coats ... ... | 110 | 717 | 110 | 717 | ... | ... | |
| Tools, plants and office furniture... | ... | 1,324 | ... | 1,356 | ... | ... | |
| Total ... | ... | 13,199 | ... | 13,231 | 32 | ... | |
| *Working Plans.* | | | | | | | |
| Office tent ... ... | 1 | 285 | 1 | 85 | ... | ... | |
| Tools, plant and office furniture ... | ... | 922 | ... | 422 | ... | ... | |
| Total ... | ... | 1,207 | ... | 507 | ... | 700 | |

R. C. WROUGHTON,

Deputy Conservator of Forests, Northern Circle.

*Bándra, 15th October 1894.*

FORM No. 61.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Summary of Revenue and Expenditure of the different Divisions for the Forest year 1893-94 (1st July 1893 to 30th June 1894).*

| Budget Heads. | Direction. | East Thána Division. | West Thána Division. | Surat Division. | Panch Mahâls Division. | Working Plans Division. | Bombay Forest Survey. | Total Forest year 1893-94. |
|---|---|---|---|---|---|---|---|---|
| REVENUE. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | | | |
| *a.* Timber ... ... ... | ..... | 470 4 6 | 864 9 0 | 24,204 15 4 | 430 8 9 | ..... | ..... | 25,970 5 7 |
| *b.* Firewood and charcoal ... ... | ..... | 0 7 6 | 327 3 0 | 156 5 0 | 147 8 0 | ..... | ..... | 631 7 6 |
| *c.* Bamboos ... ... ... | ..... | ..... | ..... | 0 10 0 | ..... | ..... | ..... | 0 10 0 |
| *d.* Sandalwood ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *e.* Grass and other minor produce ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total, I ... | ..... | 470 12 0 | 1,191 12 0 | 24,361 14 4 | 578 0 9 | ..... | ..... | 26,602 7 1 |
| *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | | | | |
| *a.* Timber ... ... ... | ..... | 1,94,895 11 2 | 2,71,200 15 0 | 49,409 11 3 | 66,677 1 3 | ..... | ..... | 5,82,183 6 8 |
| *b.* Firewood and charcoal ... ... | ..... | 1,329 8 6 | 5,572 10 8 | 254 5 0 | 4,165 7 0 | ..... | ..... | 11,321 15 2 |
| *c.* Bamboos ... ... ... | ..... | 814 11 9 | 18,126 10 4 | 25,474 9 9 | 1,484 3 11 | ..... | ..... | 45,900 3 9 |
| *d.* Grazing and fodder grass ... ... | ..... | 4,010 6 3 | 16,558 0 9 | 2,060 7 0 | 6,027 3 6 | ..... | ..... | 28,656 1 6 |
| *e.* Other minor produce ... ... | ..... | 2,747 7 6 | 2,435 11 0 | 2,161 10 3 | 583 4 0 | ..... | ..... | 7,928 0 9 |
| Total, II ... | ..... | 2,03,797 13 2 | 3,13,893 15 9 | 79,360 11 3 | 78,937 3 8 | ..... | ..... | 6,75,989 11 10 |
| *III.—Drift and Waif Wood and confiscated Forest Produce...* ... ... ... | ..... | 2,037 15 2 | 349 7 7 | 619 4 9 | 82 4 9 | ..... | ..... | 3,089 0 3 |
| Total, III ... | ..... | 2,037 15 2 | 349 7 7 | 619 4 9 | 82 4 9 | ..... | ..... | 3,089 0 3 |
| *IV.—Revenue from Forests not managed by Government—* | | | | | | | | |
| *a.* Duty on foreign timber and other forest produce ... ... ... | ..... | ..... | 4 2 6 | ..... | ..... | ..... | ..... | 4 2 6 |
| *b.* Revenue from shared and private forests ... | ..... | 1,693 5 1 | 8 15 0 | 1 13 4 | 35,001 12 0 | ..... | ..... | 36,705 13 5 |
| Total, IV ... | ..... | 1,693 5 1 | 13 1 6 | 1 13 4 | 35,001 12 0 | ..... | ..... | 36,709 15 11 |
| *V.—Miscellaneous—* | | | | | | | | |
| *a.* Fines and forfeitures ... ... | ..... | 1,083 6 6 | 6,681 6 0 | 250 0 0 | 171 4 5 | ..... | ..... | 8,186 0 11 |
| *b.* Refunds ... ... ... | 51 14 0 | 63 11 0 | 73 13 6 | 61 14 6 | 25 13 9 | 0 7 0 | ..... | 277 9 9 |
| *c.* Other sources ... ... ... | ..... | 3,865 15 3 | 4,212 8 6 | 892 9 8 | 1,127 14 3 | ..... | ..... | 10,098 15 8 |
| Total, V ... | 51 14 0 | 5,013 0 9 | 10,967 12 0 | 1,204 8 2 | 1,325 0 5 | 0 7 0 | ..... | 18,562 10 4 |
| Grand Total, Revenue ... | 51 14 0 | 2,13,012 14 2 | 3,26,416 0 10 | 1,05,548 3 10 | 1,15,924 5 7 | 0 7 0 | ..... | 7,60,953 13 5 |

## EXPENDITURE.

### A.—Conservancy and Works.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | | | |
| *a.* Timber ... ... ... | ..... | 167 11 0 | 47 6 0 | 16,542 4 5 | 39 1 0 | ..... | ..... | 16,796 6 5 |
| *b.* Firewood and charcoal ... ... | ..... | ..... | 98 8 6 | 3 0 0 | ..... | ..... | ..... | 101 8 6 |
| *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *d.* Sandalwood ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *e.* Grass and other minor produce ... | ..... | 4 14 0 | 749 15 10 | 9 4 6 | ..... | ..... | ..... | 764 2 4 |
| Total, A I ... | ..... | 172 9 0 | 895 14 4 | 16,554 8 11 | 39 1 0 | ..... | ..... | 17,662 1 3 |
| *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers* ... | ..... | 2,984 13 4 | 5,672 3 2 | 2,991 1 9 | 718 6 3 | ..... | ..... | 12,366 8 6 |
| Total, A II ... | ..... | 2,984 13 4 | 5,672 3 2 | 2,991 1 9 | 718 6 3 | ..... | ..... | 12,366 8 6 |
| *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... ... | ..... | 17 12 9 | 68 4 3 | 15 1 11 | 2 0 0 | ..... | ..... | 103 2 11 |
| Total, A III ... | ..... | 17 12 9 | 68 4 3 | 15 1 11 | 2 0 0 | ..... | ..... | 103 2 11 |
| *IV.—Revenue from Forests not managed by Government—* | | | | | | | | |
| *a.* Duty on foreign timber and other forest produce ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Revenue from shared and private forests ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total, A IV ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *V.—Rent of leased Forests and payments to shareholders in Forests managed by Government* ... | ..... | 135 2 2 | ..... | 15,645 7 0 | ..... | ..... | ..... | 15,780 9 2 |
| Total, A V ... | ..... | 135 2 2 | ..... | 15,645 7 0 | ..... | ..... | ..... | 15,780 9 2 |
| *VI.—Live Stock, Stores, Tools and Plant—* | | | | | | | | |
| *a.* Purchase of cattle... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Feed and keep of cattle ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *c.* Purchase of stores, tools and plant ... | 132 5 0 | 57 5 0 | 39 7 0 | 201 0 0 | 60 9 9 | ..... | ..... | 490 10 9 |
| Total, A VI ... | 132 5 0 | 57 5 0 | 39 7 0 | 201 0 0 | 60 9 9 | ..... | ..... | 490 10 9 |
| Carried over Total of Heads A I to A VI. ... | 132 5 0 | 3,367 10 3 | 6,675 12 9 | 35,407 3 7 | 820 1 0 | ..... | ..... | 46,403 0 7 |

FORM NO. 61—*continued.*

| Budget Heads. | Direction. | East Thána Division. | West Thána Division. | Surat Division. | Panch Mahals Division. | Working Plans Division. | Bombay Forest Survey. | Total Forest year 1893-94. |
|---|---|---|---|---|---|---|---|---|
| | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| Brought over Total of Heads A, I, to A, VI ... | 132 5 0 | 3,367 10 3 | 6,675 12 9 | 35,407 3 7 | 820 1 0 | ..... | ..... | 46,403 0 7 |
| EXPENDITURE—*continued.* | | | | | | | | |
| A.—CONSERVANCY AND WORKS—*continued.* | | | | | | | | |
| *VII.—Communications and Buildings—* | | | | | | | | |
| *a.* Roads and bridges ... ... | ..... | ..... | ..... | 1,688 2 2 | ..... | ..... | ..... | 1,688 2 2 |
| *b.* Buildings ... ... ... | ..... | 998 2 6 | 669 10 9 | 2,456 1 11 | 851 15 1 | ..... | ..... | 4,975 14 3 |
| *c.* Other works ... ... ... | ..... | ..... | ..... | 42 14 4 | 620 9 3 | ..... | ..... | 663 7 7 |
| Total A. VIII ... | ..... | 998 2 6 | 669 10 9 | 4,187 2 5 | 1,472 8 4 | ..... | ..... | 7,327 8 0 |
| *VIII.—Organization, Improvement, and Extension of Forests—* | | | | | | | | |
| *a.* Demarcation ... ... ... | ..... | 189 15 3 | 298 14 0 | 633 14 2 | 663 15 8 | ..... | ..... | 1,786 11 1 |
| *b.* Cost of settlements; compensation for land and rights ... ... | ..... | 2,362 2 10 | 5,498 1 6 | 955 5 6 | 54 10 9 | ..... | ..... | 8,870 4 7 |
| *c.* Surveys ... ... ... | ..... | A 203 12 5 | A. 20 13 4 | ..... | ..... | ..... | B. 11,684 15 8 | 11,909 9 5 |
| *d.* Working-plans ... ... | 124 5 3 | 390 10 0 | 294 2 0 | 375 6 9 | 452 13 9 | 5,748 11 5 | ..... | 7,386 1 2 |
| *e.* Sowing and planting ... ... | ..... | 218 11 3 | 634 9 8 | 1,371 7 3 | 640 11 0 | ..... | ..... | 2,865 7 2 |
| *f.* Protection from fire ... ... | ..... | 1,519 15 6 | 2,519 13 9 | 380 0 6 | 69 2 6 | ..... | ..... | 4,489 0 3 |
| *g.* Other works ... ... ... | ..... | 78 6 6 | 1,043 4 11 | 44 12 9 | ..... | ..... | ..... | 1,166 8 2 |
| Total A, VIII ... | 124 5 3 | 4,963 9 9 | 10,309 11 2 | 3,760 14 11 | 1,881 5 8 | 5,748 11 5 | 11,684 15 8 | 38,473 9 10 |
| *IX.—Miscellaneous—* | | | | | | | | |
| *a.* Refunds ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Law charges ... ... ... | ..... | ..... | 2,039 5 4 | ..... | ..... | ..... | ..... | 2,039 5 4 |
| *c.* Other charges ... ... ... | 2 0 0 | 1,269 0 6 | 1,361 6 0 | 501 11 10 | 669 3 2 | ..... | ..... | 3,803 5 6 |
| Total A, IX ... | 2 0 0 | 1,269 0 6 | 3,400 11 4 | 501 11 10 | 669 3 2 | ..... | ..... | 5,842 10 10 |
| Total.—Conservancy and Works ... | 258 10 3 | 10,598 7 0 | 21,055 14 0 | 43,857 0 9 | 4,843 2 2 | 5,748 11 5 | 11,684 15 8 | 98,046 13 3 |

B.—ESTABLISHMENTS.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *I.—Salaries—* | | | | | | | | |
| *a.* Conservators ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Superior Officer ... ... ... | 9,909 2 4 | 13,600 0 0 | 11,636 7 6 | 5,473 1 0 | 4,800 0 0 | 6,900 0 0 | ..... | 52,318 10 10 |
| *Exchange Compensation Allowance* ... | 130 14 5 | 1,177 1 9 | 1,089 15 2 | 449 12 9 | 470 15 9 | 1,078 13 8 | ..... | 4,397 9 6 |
| *c.* Subordinate Forest and Depôt Establishments ... ... ... | ..... | 26,937 7 9 | 20,864 8 1 | 8,400 1 9 | 11,320 12 6 | ..... | ..... | 67,522 14 1 |
| *d.* Office Establishments ... ... | 3,336 13 9 | 2,959 5 1 | 2,741 10 0 | 2,102 15 3 | 1,720 7 5 | 880 0 0 | ..... | 13,741 3 6 |
| *e.* Deputation and Special Allowances ... | ..... | ..... | 306 7 3 | ..... | ..... | 907 13 0 | ..... | 1,214 4 3 |
| Total B, I .. | 13,376 14 6 | 44,673 14 7 | 36,639 0 0 | 16,425 14 9 | 18,312 3 8 | 9,766 10 8 | ..... | 1,39,194 10 2 |
| *II.—Travelling Allowances—* | | | | | | | | |
| *a.* Conservators ... ... .. | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Superior Officers ... ... .. | 2,064 6 8 | 3,088 6 4 | 2,925 13 9 | 1,912 10 11 | 1,535 7 4 | 911 1 8 | ..... | 12,437 14 8 |
| *c.* Subordinate Forest and Depôt Establishments ... ... ... | ..... | 1,070 8 3 | 883 1 1 | 904 7 2 | 621 12 10 | ..... | ..... | 3,479 13 4 |
| *d.* Office Establishments ... ... | 1,042 4 9 | 957 15 0 | 899 3 11 | 802 4 7 | 600 15 7 | 302 6 9 | ..... | 4,605 2 7 |
| Total B, II ... | 3,106 11 5 | 5,116 13 7 | 4,708 2 9 | 3,619 6 8 | 2,758 3 9 | 1,213 8 5 | ..... | 20,522 14 7 |
| *III.—Contingencies—* | | | | | | | | |
| *a.* Stationery ... ... .. | 25 8 0 | 383 9 3 | 307 13 9 | 184 13 11 | 252 14 0 | ..... | ..... | 1,154 10 11 |
| *b.* Carriages and Tents of Records ... | 321 4 10 | 282 9 3 | 211 3 8 | 268 6 9 | 191 15 6 | ..... | ..... | 1,275 8 0 |
| *c.* Rents, Rates and Taxes ... ... | 428 0 0 | 332 8 0 | 189 14 0 | 125 5 4 | ..... | ..... | ..... | 1,075 11 4 |
| *d.* Pay of Police Guards ... .. | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *e.* Official Postage ... ... ... | 202 9 6 | 976 14 6 | 622 7 0 | 419 7 0 | 275 11 0 | ..... | ..... | 2,497 1 0 |
| *f.* Sundries ... ... ... | 194 11 7 | 159 14 4 | 170 7 9 | 442 13 4 | 211 3 9 | ..... | ..... | 1,179 2 9 |
| Total B, III ... | 1,172 1 11 | 2,135 7 4 | 1,501 14 2 | 1,440 14 4 | 931 12 3 | ..... | ..... | 7,182 2 0 |
| Total B.—Establishments ... | 17,655 11 10 | 51,926 3 6 | 42,849 0 11 | 21,486 3 9 | 22,002 3 8 | 10,980 3 1 | ..... | 1,66,899 10 9 |
| Grand Total of Expenditure ... | 17,914 6 1 | 62,524 10 6 | 63,904 14 11 | 65,343 4 6 | 26,845 5 10 | 16,728 14 6 | 11,684 15 8 | 2,64,946 8 0 |

A—Amount of wages paid to Flag holders by the Superintendent, Revenue Konkan Survey adjusted in this office in the accounts for July 1893 to June 1894, on receipt of the bills.

B.

| | Financial year 1893-94. | Deduct April 1893 to June 1893. | Total 9 months. | Add April 1894 to June 1894. | Total Forest year. | |
|---|---|---|---|---|---|---|
| | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| West Thána ... ... | 9,006 13 3 | 4,257 1 4 | 4,749 11 11 | 2,843 11 2 | 7,593 7 1 | *Vide* letter No. F. 13,603, dated 14th August 1894, addressed to the Deputy Conservator of Forests, Northern Circle. |
| East Thána ... ... | 4,655 15 11 | 1,764 14 8 | 2.891 1 3 | 1,200 7 4 | 4,091 8 7 | |
| Total ... | 13,662 13 2 | 6,022 0 0 | 7,640 13 2 | 4,044 2 6 | 11,684 15 8 | |

No. F.—15508.

*Office of the Accountant General Bombay, dated 8th September 1894.*

Forwarded to the Deputy Conservator of Forests, Northern Circle (Bándra), under Section 267 of the Forest Department Code.

O. T. BARROW,
Accountant General.

FORM No. 62.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Annual Account Current for the Forest Year 1893-94.*

| | | Rs. a. p. | Rs. a. p. | | Rs. a. p. | Rs. a. p. |
|---|---|---|---|---|---|---|
| To opening Balance ... ... ... ... | | ..... | 2,437 2 11 | 1. Refunds and Drawbacks—Refunds— | | |
| VIII. | Assessed Taxes—Income Tax—Deductions by Government from Salaries and Pensions ... ... | ..... | 2,528 0 4 | Divided Heads, Forest ... ... ... | 631 8 10 | 632 7 6 |
| IX. | Forest (as per summary) ... ... | ..... | 7,60,953 13 5 | Income Tax ... ... ... ... | 0 14 8 | |
| XII. | Interest— | | | 11. Forest (as per summary) ... ... | ..... | 2,66,448 1 9 |
| | Interest on Arrears of Revenue ... | ..... | ..... | 19. Law and Justice— | | |
| XXII. | Receipts in aid of Superannuation, &c. | | | Jails, District Jails, Contingencies ... | ..... | ..... |
| | Subscription to the Military Fund— | | | Revenue Deposits (Forests) ... ... ... | ..... | 48,871 6 5 |
| | Bengal Military Fund ... ... | 490 8 0 | 713 15 2 | Cheques and Bills (Forests cheque cancelled). | ..... | 938 11 6 |
| | Do. do. Orphan Fund ... | 223 7 2 | | Advances Recoverable— | | |
| XXIII. | Stationery and Printing— | | | Forest Advances ... ... ... ... | 1,36,442 2 7 | 1,38,901 2 7 |
| | Stationery Receipts— | | | Tentage Advances ... ... ... ... | ..... | |
| | Sale-proceeds of Stationery Boxes. | ..... | ..... | Objection Book Advances ... ... ... | 2,459 0 0 | |
| | Other Press Receipts— | | | Cash Recoveries ... ... ... ... | ..... | 4,708 12 3 |
| | Government Central Press ... | ..... | ..... | Forest Remittances— | | |
| XXV. | Miscellaneous—Sale proceeds of— | | | Remittances to Treasuries ... ... ... | 7,99,871 5 6 | 8,76,534 12 9 |
| | Stores and Materials ... ... | 8 9 6 | 1,346 4 6 | Inter-divisional Transfers ... ... ... | 76,663 7 3 | |
| | Unclaimed Deposits ... ... | 1,337 11 0 | | Inter-departmental Transfers ... ... | ..... | |
| Revenue Deposits (Forest) ... ... ... | | ..... | 45,952 14 5 | | | |
| Cheques and Bills (Departmental Cheques), Forest ... ... ... ... ... | | ..... | 3,64,242 5 4 | | | |
| Advances Recoverable— | | | | | | |
| Forest Advances ... ... ... ... | | 1,38,321 1 9 | 1,40,540 6 9 | | | |
| Tentage Advances ... ... ... ... | | 133 5 0 | | | | |
| Objection Book Advances ... ... ... | | 2,086 0 0 | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Cash Recoveries ... ... ... ... ... | ..... | | 4,708 | 12 | 3 | Accounts Current— | | | |
| Forest Remittances— | | | | | | Account between Bombay and Military, Bombay— | | | |
| Remittances to Treasuries ... ... ... | 28 | 9 6 | | | | IV. Items adjustable by Military ... | ..... | ..... | |
| Inter-divisional Transfers ... ... ... | 13,662 | 13 2 | 13,941 | 15 | 10 | Account between Bombay and P. W. D., Bombay—(Ordinary Branches)— | | | |
| Inter-departmental Transfers ... ... | 250 | 9 2 | | | | IV. Items adjustable by P. W. D. ... | ..... | ..... | |
| Bombay Uncovenanted Service F. P. Fund— | | | | | | Inter-departmental charges, &c. ... | ..... | 585 | 4 0 |
| Widows' Branch ... ... ... ... | ..... | | 493 | 3 | 0 | Account between Bombay and P. W. D.—(Railway Branch)——————Railway— | | | |
| Account between India and Bombay— | | | | | | IV. Items adjustable by P. W. D. ... | ..... | ..... | |
| III. Items adjustable by India— | | | | | | Account between India and Bombay— | | | |
| Bengal Military Fund ... ... | 45 | 0 0 | | | | III. Items adjustable by India— | | | |
| Bengal Military Orphan Fund ... | 20 | 8 0 | 65 | 8 | 0 | Bengal Military Fund ... ... | 45 | 0 0 | 65 8 0 |
| Bengal Uncovenanted S. F. P. Fund. | ..... | | | | | Do. do. Orphan Fund ... | 20 | 8 0 | |
| Account between Bombay and P. W. D., Bombay— | | | | | | Closing Balance ... | ..... | | 248 10 3 |
| IV. Items adjustable by P. W. D.— | | | | | | | | | |
| Payments into Treasuries by Civil Officers on Account of P. W. D. ... | ..... | | 10 | 7 | 1 | | | | |
| Total ... | ..... | | 13,37,934 | 13 | 0 | Total ... | ..... | 13,37,934 | 13 0 |

No. F. 15196

Forwarded to the Deputy Conservator of Forests, Northern Circle (Bándra), under Section 267 of the Forest Department Code.

*Accountant General's Office,*
*Bombay, 8th September 1894.*

O. T. BARROW,
Accountant General.

B 1106—14 N. C.

# FORM No. 63.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Revenue received and Outstandings on account of Revenue during 1893-94.*

| Division. | Particulars. | Outstandings at commencement of year. | Value of Sales and other Revenue during year. | Total. | Amount realized during year. | Balance due to the Department at end of year. | REMARKS. |
|---|---|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| East Thána ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | |
| | (*a*). Timber ... ... ... | ..... | 470 4 6 | 470 4 6 | 470 4 6 | ..... | |
| | (*b*). Firewood and charcoal ... ... | ..... | 0 7 6 | 0 7 6 | 0 7 6 | ..... | |
| | (*c*). Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | (*d*). Sandalwood ... ... | ..... | ..... | ..... | ..... | ..... | |
| | (*e*). Grass and other minor produce ... | ..... | ..... | ..... | ..... | ..... | |
| | *II.—Timber and other Produce removed from the Forests by the Consumers and Purchasers—* | | | | | | |
| | (*a*). Timber ... ... .. | 1,046 4 0 | 1,99,015 7 2 | 2,00,061 11 2 | 1,94,895 11 2 | 5,166 0 0 | |
| | (*b*). Firewood and charcoal ... ... | ..... | 1,329 8 6 | 1,329 8 6 | 1,329 8 6 | ..... | |
| | (*c*). Bamboos ... ... ... | ..... | 814 11 9 | 814 11 9 | 814 11 9 | ..... | |
| | (*d*). Grazing and fodder grass ... | ..... | 4,010 6 3 | 4,010 6 3 | 4,010 6 3 | ..... | |
| | (*e*). Other minor produce ... ... | ..... | 4,197 7 6 | 4,197 7 6 | 2,747 7 6 | 1,450 0 0 | |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 2,037 15 2 | 2,037 15 2 | 2,037 15 2 | ..... | |
| | Total ... | 1,046 4 0 | 2,11,876 4 4 | 2,12,922 8 4 | 2,06,306 8 4 | 6,616 0 0 | |
| West Thána ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | |
| | (*a*). Timber ... ... ... | ..... | 864 9 0 | 864 9 0 | 864 9 0 | ..... | |
| | (*b*). Firewood and charcoal ... ... | ..... | 327 3 0 | 327 3 0 | 327 3 0 | ..... | |
| | *II.—Timber and othe Produce removed from the Forests by Consumers and Purchasers—* | | | | | | |
| | (*a*). Timber ... ... ... | ..... | 2,71,200 15 0 | 2,71,200 15 0 | 2,71,200 15 0 | ..... | |
| | (*b*). Firewood and charcoal ... ... | ..... | 5,572 10 8 | 5,572 10 8 | 5,572 10 8 | ..... | |
| | (*c*). Bamboos ... ... ... | ..... | 18,126 10 4 | 18,126 10 4 | 18,126 10 4 | ..... | |
| | (*d*). Grazing and fodder grass ... | ..... | 16,558 0 9 | 16,558 0 9 | 16,558 0 9 | ..... | |
| | (*e*). Other minor produce ... ... | ..... | 2,435 11 0 | 2,435 11 0 | 2,435 11 0 | ..... | |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 349 7 7 | 349 7 7 | 349 7 7 | ..... | |
| | Total ... | ..... | 3,15,435 3 4 | 3,15,435 3 4 | 3,15,435 3 4 | ..... | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Surat ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | |
| | (*a*) Timber ... ... ... | ..... | 24,204 15 4 | 24,204 15 4 | 24,204 15 4 | ..... |
| | (*b*) Firewood and charcoal ... ... | ..... | 156 5 0 | 156 5 0 | 156 5 0 | ..... |
| | (*c*) Bamboos ... ... ... | ..... | 0 10 0 | 0 10 0 | 0 10 0 | ..... |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | |
| | (*a*) Timber ... ... ... | ..... | 49,409 11 3 | 49,409 11 3 | 49,409 11 3 | ..... |
| | (*b*) Firewood and charcoal ... ... | ..... | 254 5 0 | 254 5 0 | 254 5 0 | ..... |
| | (*c*) Bamboos ... ... ... | ..... | 25,474 9 9 | 25,474 9 9 | 25,474 9 9 | ..... |
| | (*d*) Grazing and fodder grass ... | ..... | 2,060 7 0 | 2,060 7 0 | 2,060 7 0 | ..... |
| | (*e*) Other minor produce ... ... | ..... | 2,161 10 3 | 2,161 10 3 | 2,161 10 3 | ..... |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 619 4 9 | 619 4 9 | 619 4 9 | ..... |
| | Total ... | ..... | 1,04,341 14 4 | 1,04,341 14 4 | 1,04,341 14 4 | ..... |
| Panch Mahals ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | |
| | (*a*) Timber ... ... ... | ..... | 430 8 9 | 430 8 9 | 430 8 9 | ..... |
| | (*b*) Firewood and charcoal ... ... | ..... | 147 8 0 | 147 8 0 | 147 8 0 | ..... |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | |
| | (*a*). Timber ... ... ... | ..... | 66,677 1 3 | 66,677 1 3 | 66,677 1 3 | ..... |
| | (*b*). Firewood and charcoal ... ... | ..... | 4,165 7 0 | 4,165 7 0 | 4,165 7 0 | ..... |
| | (*c*). Bamboos ... ... ... | ..... | 1,484 3 11 | 1,484 3 11 | 1,484 3 11 | ..... |
| | (*d*). Grazing and fodder grass ... | ..... | 6,027 3 6 | 6,027 3 6 | 6,027 3 6 | ..... |
| | (*e*). Other minor produce ... ... | ..... | 583 4 0 | 583 4 0 | 583 4 0 | ..... |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 82 4 9 | 82 4 9 | 82 4 9 | ..... |
| | Total ... | ..... | 79,597 9 2 | 79,597 9 2 | 79,597 9 2 | ..... |
| | GRAND TOTAL ... | 1,046 4 0 | 7,11,250 15 2 | 7,12,297 3 2 | 7,05,681 3 2 | 6,616 0 0 |

*Bándra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 64.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

*Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1893-94.*

| Division. | DEPARTMENT DEBTOR. | | | DEPARTMENT CREDITOR. | | | BALANCE DUE | | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|
| | At commencement of year. | Recoveries in cash and value of supplies and work done during year. | Act close of year. | At commencement of year. | Payments made during year. | At close of year. | To Department (Outstandings). | By Department (Liabilities). | |
| | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | R. a. p. | |
| *Contractor.* | | | | | | | | | |
| Surat ... ... | ..... | ..... | ..... | ..... | 1,200 0 0 | 1,200 0 0 | 1,200 0 0 | ... | |
| Total ... | ..... | ..... | ..... | .... | 1,200 0 0 | 1,200 0 0 | 1,200 0 0 | ... | |
| *Disbursers.* | | | | | | | | | |
| East Thána ... ... | ..... | 37,634 1 0 | 37,634 1 0 | 1,640 3 1 | 37,438 6 1 | 39,078 9 2 | 1,444 8 2 | ... | |
| West Thána ... | ..... | 38,188 11 4 | 38,188 11 4 | 2,372 3 10 | 37,814 0 2 | 40,186 4 0 | 1,997 8 8 | ... | |
| Surat ... ... | ..... | 42,543 12 2 | 42,543 12 2 | 2,810 1 11 | 40,086 15 7 | 42,897 1 6 | 353 5 4 | ... | |
| Punch Mahals ... | ..... | 14,381 7 3 | 14,381 7 3 | 319 5 5 | 14,265 0 0 | 14,584 5 5 | 202 14 2 | ... | |
| Working Plans ... | ..... | 1,773 2 0 | 1,773 2 0 | ..... | 1,773 2 0 | 1,773 2 0 | ..... | ... | |
| Bombay Forest Survey ... | ..... | 3,800 0 0 | 3,800 0 0 | ..... | 3,864 10 9 | 3,864 10 9 | 64 10 9 | ... | |
| Total Disbursers ... | ..... | 1,38,321 1 9 | 1,38,321 1 9 | 7,141 14 3 | 1,35,242 2 7 | 1,42,384 0 10 | 4,062 15 1 | ... | |
| GRAND TOTAL ... | ..... | 1,38,321 1 9 | 1,38,321 1 9 | 7,141 14 3 | 1,36,442 2 7 | 1,43,584 0 10 | 5,262 15 1 | ... | |

No. F./15195.

*Accountant General's Office, Bombay, 8th September 1894.*

Forwarded to the Deputy Conservator of Forests, Northern Circle, Bándra, under Section 267 of the Forest Department Code.

O. T. BARROW,
Accountant General.

# FORM No. 65.

## Forest Department, Bombay, Northern Circle.

*Financial Results of the year 1893-94.*

| Division. | Timber and other Produce removed from the Forests by Government Agency. | | Other Revenue. | | Formation, Protection and Improvement of Forests. | Total. | | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | Receipts. | Charges. | Receipts. | Charges. | Charges. | Receipts. | Charges. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| East Thána ... ... | 2,509 | 21,620 | 2,10,517 | 24,433 | 33,408 | 2,13,026 | 79,461 | |
| West Thána ... ... | 1,541 | 19,883 | 3,24,889 | 24,660 | 39,808 | 3,26,430 | 84,351 | |
| Surat ... ... ... | 24,981 | 32,049 | 80,580 | 18,485 | 19,277 | 1,05,561 | 69,811 | |
| Panch Mahals ... ... | 660 | 9,590 | 1,15,277 | 10,269 | 11,464 | 1,15,937 | 31,323 | |
| Total ... | 28,691 | 83,142 | 7,31,253 | 77,847 | 1,03,957 | 7,60,954 | 2,64,946 | |

*Bandra, 15th October 1894.*

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

No. 4549 of 1894.

REVENUE DEPARTMENT.

*Ahmedabad, 24th December 1894.*

Forwarded.

2. There were hardly any changes in the personnel of the forest administration, except that at the very end of the official year, Mr. Wroughton took over charge from Mr. Dasai. He has therefore had to write the account of Mr. Dasai's administration.

3. As shown in paragraphs 8 and 9, the area of reserved forest has been increased by the addition of 72·3 square miles and 114·6 square miles transferred from protected forest in the West Thána Division and the Panch Mahálś and 7·1 square miles in East Thána.

4. Forest settlements have been carried on during the year. The statements in paragraphs 20 and 26 show that the work remaining is all in Thána, about one-half the area in West Thána, and a great deal more than half in East Thána still remains to be done. The area settled this year is only 252 square miles as compared to 364 of last year, while the cost per square mile has risen considerably from Rs. 55-14 to Rs. 77. No explanation of this is given.

5. No details are given this year of the work of the Forest Survey Party of the Government of India.

6. The statement (paragraph 33) gives a very clear view of the work of the Working Plans Officer, and is an improvement on the form adopted last year. The number of blocks in several of the ranges varies slightly, and the total number is 284 against the 282 of last year. Váda is now shown in the Eastern Division and the Talesri Mahál in the Western Division. The outturn of work was not bad, considering that Mr. Fry did not commence work in the Northern Circle till after Christmas. It is to be hoped that now that so much more of the area has been settled, there will be a marked improvement in the work of laying out advance coupes. There is no forecast of the time required to finish this work.

7. The Commissioner is of the same opinion as last year that the increase in forest revenue well justifies some increase in the protective establishment. Proposals for Surat and the Panch Mahálś will shortly be submitted. It will be seen that all the Collectors of forest districts are agreed on the necessity for an increase in pay and numbers.

8. The breaches of forest law call for little notice. The number of offences is not at all high for so extended an area. The offences compounded under Section 67 only amounted to 244, and out of this in 170 cases compensation did not exceed Rs. 2. Fire protection has been very fair in Thána. The Panch Mahálś show a decided increase in forest fires. In Surat though there is perhaps no increase, still Mr. Lely's remarks at page 22 deserve notice. The forest fires in Mándvi cannot be put down without a larger protective establishment. The satisfactory feature of the case is that the improvement in fire conservancy is marked in the really valuable forests of Thána.

9. The Commissioner agrees with Mr. Wrougliton that the total number of cattle impounded is not large; but it is a question whether very much harm is done by grazing in a district like the Panch Mahálś, where at any rate up to the present time the value of the forests is not very great.

10. Fencing ought certainly to be used more largely if funds admit, especially in the small and important grass plantations of which some exist in Surat.

11. Only two forest guards were tried and punished. This is decidedly satisfactory. From the further details in paragraph 128 it seems that the conduct of the forest guards was as good as can be expected for the pay they get; but the Deputy Conservator has made no remarks on the subject.

12. The amount of timber and firewood worked out by departmental operations is very small as compared to that removed by contractors, and so far as timber is concerned, is confined almost to Surat. In Thána, as explained at paragraph 84 of the Deputy Conservator's report, the coupe system is working well. It is satisfactory to notice that 40 of the less accessible coupes in Eastern Thána have been sold this year; and the statement at paragraph 97 shows a general improvement in the number of coupes sold, an increase of a lákh of rupees in price, and a rise in the sale rate.

13. The very small sums—Rs. 8,979 and 7,928—realized from grazing and minor forest produce is in itself a proof that the working of the forests in this Circle is conducted with but little interference with the people. There is little to take away from the satisfaction with which the Deputy Conservator reports a record year both in gross receipts and in net revenue. It will be noticed that the net revenue which has as yet never reached four lákhs, has now only Rs. 4,000 short of five. The figures of receipts and expenditure given in paragraphs 110 and 114 do not agree, apparently because those for 1892-93 in the former are for the forest year beginning with 1st July and ending with 30th June, while those in paragraph 114 for the same year included the period from 1st April 1892 to 30th June 1893. The concluding part of the footnote below the table in the latter paragraph does not correctly state the facts.

14. The extracts from the Collectors' reports do not raise many important points. It is satisfactory to note that the excellent feeling between the revenue and forest officers continues to prevail. Mr. Sinclair's retirement is an important fact in the history of Thána forestry; but the excellent work that he has done will live after him. Mr. Lely's proposals for small rewards to subordinates for special service is worth considering. Mr. Silcock in paragraph 4 of his West Thána report notices the steps taken to stop the traffic in dead wood from the 1st November 1894. This is an important point, but of course it does not come within the year 1893-94 and is therefore not noticed by Mr. Wroughton.

15. This report is silent on the subject of apportioning portions of forest for fuel and fodder reserves and for grass lands. But a good deal has been done in this direction in Surat since the close of 1893-94.

16. Mr. Dasai managed his circle very well during the year, and the Commissioner believes that his commendation of Messrs. Millett and Wallinger is well deserved.

17. A memorandum showing certain discrepancies in the report is appended.

G. B. REID,
Commissioner, N. D.

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*Discrepancies in the Report.*

*Para.* 26.—The area settled is shown in the table as 1,626·389 square miles, whereas in Form 47, 1,269 square miles are entered.

*Para.* 27.—The figures in column 6 do not agree with those in columns 9 and 10 of Form 48. In the former, Rs. 3,738 are entered, whereas in the latter Rs. 2.910.

G. B. REID,
Commissioner, N. D.

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# CENTRAL CIRCLE.

No. 5138 of 1894-95.

From

The Honourable Mr. A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle;

To

The CHIEF SECRETARY to GOVERNMENT,
Revenue Department,
Bombay.

*Camp Poona,*
*Dated 29th December 1894.*

Sir,

I have the honour to submit herewith the Forest Administration Report of the Central Circle for the forest year 1893-94, together with its prescribed subsidiary statements.

I have the honour to be,
Sir,
Your most obedient Servant,
A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

Through the Commissioner, Central Division.

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# FOREST ADMINISTRATION REPORT OF THE CENTRAL CIRCLE, BOMBAY PRESIDENCY, FOR THE FOREST YEAR 1893-94.

## INTRODUCTION.

The constitution of the Central Circle has remained unchanged throughout the year: it contains 6 districts, *viz.*, Khándesh, Násik, Ahmednagar, Poona, Sátára and Sholápur; Khándesh being a very large district with wide stretching forests is divided into two forest divisions.

2. The area of country included within the Circle comprises 38,390 square miles, while the forest area at the commencement of the year stood at 5,913 square miles and 379 acres, and at the close of the year at 6,157 square miles and 352 acres.

3. The selection of lands for forest reservation has been completed in all the districts; and the settlement of the forests according to the prescriptions of the Indian Forest Act No. VII of 1878 has been accomplished, with the exception of 158 square miles and 314 acres of provisionally notified forest or waste lands which were still undergoing settlement when the year closed.

4. No necessity for granting new privileges in the forests has appeared during the year.

5. The administrative staff for directing and controlling operations consisted of 1 Conservator and 7 Divisional Forest Officers who are Deputy or Assistant or Extra Assistant Conservators according to their respective ranks in the Indian Forest Service or in the Provincial Forest Service when the year opened; and to this number a Divisional Forest Officer of Working Plans has been added during the year.

6. The demarcation of forest boundaries on the ground by the building of special forest boundary marks to be the outward visible sign of forest reservations has covered 1,030 linear miles with 21,592 pillars erected at a cost of Rs. 8,411, during the year.

7. The Forest Surveys have surveyed and mapped 186·26 square miles; on the 16″, 65·01 square miles, on the 8,″ 112·65, and on the 4,″ 8·6 square miles scale respectively, at a total cost of Rs. 28,289 during the year.

8. The number of offence cases prosecuted during the year amounted to 1,437 against 1,402 of the previous year; while 926 cases were compounded under Section 67 of the Forest Act against 9,647 cases during 1892-93.

9. 294;769 head of cattle, consisting of 127,706 oxen, 13,099 buffaloes, 55 camels, 949 horses, 373 asses and 152,587 sheep and goats, were impounded for grazing illicitly in the forests during the year: the total shows a decrease when compared with the number impounded during the corresponding months of the preceding year. On the other hand, fee and free-grazing permits have been taken out by cattle owners for a larger number of animals than before. These results point to the grazing rules being better understood and appreciated by the people.

10. Fire conservancy has received continued and careful attention, and a very much smaller forest area has been traversed by fire this year than last. Forest guards have been vigilant and forest villagers have rendered willing and valuable assistance in attacking and extinguishing fires.

11. Reproduction, natural and artificial, has progressed satisfactorily as the rainfall of the year was seasonable and the protection of the forests against external dangers, save from cattle in the more exposed parts, has been effective.

12. The financial results are very good as the net revenue of the year has amounted to Rs. 3,01,039 against Rs. 2,35,503 of the year before, which represented 15 months.

13. The Honourable Mr. A. T. Shuttleworth, Conservator of Forests, First Grade, was in charge of the Central Circle throughout the year, and the names and rank of the principal Forest officer of each division during the period of this report are given below:—

| No. | Division. | Name of Officer. | Rank. | Designation. | From | To | Remarks. |
|---|---|---|---|---|---|---|---|
| 1 | East Khándesh ... | Mr. R. H. Mádan. | Extra Assistant Conservator, 1st Grade. | Divisional Forest Officer. | 1st July 1893... | 30th June 1894. | |
| 2 | West Khándesh | Mr. E. G. Oliver ... | Deputy Conservator, 4th Grade. | Do. ... | Do. ... | 15th Nov. 1893. | |
| | | ,, H. W. Keys ... | Do. do. ... | Do. ... | 16th Nov. 1893... | 30th June 1894. | |
| | | ,, B. H. Dalal ... | Sub. *pro-tem.* Extra Assistant Conservator, 2nd Grade. | Sub-Division Forest Officer. | 1st July 1893... | 10th Jan. 1894. | |
| | | ,, H. W. Keys ... | Deputy Conservator, 4th Grade. | Do. ... | 11th Jan. 1894... | 11th Feb. 1894. | |
| | | ,, B. H. Dalal ... | Sub. *pro-tem.* Extra Assistant Conservator, 2nd Grade. | Do. ... | 12th Feb. 1894 .. | 10th April 1894. | |
| | | ,, V. G. Tumné ... | Acting do. 4th Grade. | Do. ... | 11th April 1894... | 30th June 1894. | |
| 3 | Násik ... ... | Mr. W. G. Betham. | Deputy Conservator, 2nd Grade. | Divisional Forest Officer. | 1st July 1893... | 13th April 1894. | |
| | | ,, L. S. Osmaston | Acting do, 4th Grade. | Do. ... | 14th April 1894... | 1st May 1894. | |
| | | ,, F. R. Dasai ... | Deputy Conservator, 1st Grade. | Do. ... | 2nd May 1894... | 30th June 1894. | |
| | | ,, W. R. Gaundé. | Extra Assistant Conservator, 1st Grade. | Sub-Division Forest Officer. | 1st July 1893... | 12th Dec. 1893. | |
| | | ,, V. G. Tumné ... | Acting Extra Assistant Conservator, 4th Grade. | Do. ... | 13th Dec. 1893... | 12th Jan. 1894. | |
| | | ,, L. D. Joshi ... | Extra Assistant Conservator, 1st Grade. | Do. ... | 13th Jan. 1894... | 12th Mar. 1894. | |
| | | ,, W. R. Gaundé. | Do. do. ... | Do. ... | 13th Mar. 1894... | 12th April 1894. | |
| | | ,, V. M. Tilak ... | Acting Extra Assistant Conservator, 4th Grade. | Do. ... | 13th April 1894... | 23rd May 1894. | |
| | | ,, W. R. Gaundé. | Extra Assistant Conservator, 1st Grade. | Do. ... | 24th May 1894... | 30th June 1894. | |
| 4 | Ahmednagar ... | Mr. S. Hornidge ... | Deputy Conservator, 4th Grade. | Divisional Forest Officer. | 1st July 1893... | Do. | |
| 5 | Poona ... ... | Mr. A. D. Wilkins. | Do. 3rd Grade. | Do. ... | Do. ... | Do. | |
| | | ,, L. D. Joshi ... | Extra Assistant Conservator, 1st Grade. | Sub-division Forest Officer, | Do. ... | 6th Jan. 1894. | |
| | | ,, J. H. Clabby ... | Do. 3rd Grade. | Do. ... | 7th Jan. 1894... | 21st Mar. 1894. | |
| | | ,, L. D. Joshi ... | Do. 1st Grade. | Do. ... | 22nd Mar. 1894... | 19th June 1894. | Died on the 19th of June 1894. |
| | | ,, A. D. Wilkins. | Deputy Conservator, 3rd Grade. | Do. ... | 20th June 1894... | 30th June 1894. | |
| | | ,, V. M. Tilak ... | Acting Extra Assistant Conservator, 4th Grade. | Do. ... | 26th May 1894... | Do. ... | Additional Sub-Divisional Officers. |
| | | ,, G. R. Duxbury. | Assistant Conservator, 2nd Grade. | Do. ... | 9th June 1894... | Do. | |
| 6 | Sátára ... ... | Mr. R. S. F. Fagan. | Deputy Conservator, 3rd Grade. | Divisional Forest Officer. | 1st July 1893 ... | Do. | |
| | | ,, G. S. Hingé ... | Acting Extra Assistant Conservator, 2nd Grade. | Sub-Divisio Forest Officer. | Do. ... | Do. | |
| 7 | Sholápur ... | Mr. J. H. Clabby ... | Extra Assistant Conservator, 3rd Grade. | Divisional Forest Officer. | Do. ... | 20th Nov. 1893. | |
| | | ,, E. G. Oliver ... | Deputy Conservator, 4th Grade. | Do. ... | 21st Nov. 1893... | 16th April 1894. | |
| | | ,, W. R. Gaundé. | Extra Assistant Conservator, 1st Grade. | Do. ... | 17th April 1894... | 16th May 1894. | |
| | | ,, E. G. Oliver ... | Deputy Conservator, 4th Grade. | Do. ... | 17th May 1894... | 12th June 1894. | |
| | | ,, C. M. Hodgson. | Assistant Conservator, 1st Grade. | Do. ... | 13th June 1894... | 30th do. | |
| 8 | Working Plans ... | Mr. L. S. Osmaston. | Acting Deputy Conservator, 4th Grade. | Do. ... | 19th Dec. 1893... | 30th June 1894. | |

# CHAPTER I.

## EXTENSION AND CONSTITUTION OF STATE FORESTS.

### (i). ALTERATION OF AREA.

14. The forests settled and constituted in the Central Circle under the Indian Forest Act, 1878, at the commencement and at the close of the forest year 1893-94 respectively, compare as appear in the following table :—

| Divisions. | Forest area on 1st July 1893. | | | | | | Forest area on 30th June 1894. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reserved. | | Protected. | | Total. | | Reserved. | | Protected. | | Total. | |
| | Sq. miles. | Acres. | Sq. miles. | Acres. | Sq. miles. | Acres. | Sq. miles. | Acres. | Sq. miles. | Acres. | Sq. miles. | Acres. |
| East Khándesh ... | 796 | 155 | ... | ... | 796 | 155 | 807 | 359 | ... | ... | 807 | 359 |
| West Khándesh ... | 1,102 | 454 | 177 | 435 | 1,280 | 249 | 1,578 | 485 | ... | ... | 1,578 | 485 |
| Násik ... ... ... | 1,279 | 129 | ... | ... | 1,279 | 129 | 1,279 | 129 | ... | ... | 1,279 | 129 |
| Ahmednagar ... ... | 834 | 311 | 11 | 124 | 845 | 435 | 835 | 250 | 11 | 124 | 846 | 374 |
| Poona ... ... ... | 741 | 228 | ... | ... | 741 | 228 | 708 | 224 | .. | ... | 708 | 224 |
| Sátára ... ... ... | 691 | 486 | 1 | 4 | 692 | 490 | 657 | 586 | 1 | 30 | 658 | 616 |
| Sholápur ... ... | 277 | 613 | ... | ... | 277 | 613 | 278 | 85 | ... | ... | 278 | 85 |
| Total ... | 5,723 | 456 | 189 | 563 | 5,913 | 379 | 6,145 | 198 | 12 | 154 | 6,157 | 352 |

15. It will be seen that the total area of settled and declared forests in the Central Circle at the close of the year of this report is greater by 243 square miles and 613 acres than it was when the year opened.

16. In the Násik Division no change has occurred, and the area remains the same as it was; in the East Khándesh Division there has been a gain of 11 square miles and 204 acres; in West Khándesh Division of 298 square miles and 236 acres; in Ahmednagar Division of 579 acres; and in the Sholápur Division of 112 acres. On the other hand, in the Poona Division the area is less than it was by 33 square miles and 4 acres; and in the Sátára Division by 33 square miles and 514 acres; but this is owing entirely to the rectification of errors in surveying and of computation which were discovered by the revision revenue survey in the land measurements and calculations of the original survey.

17. While the "Reserved forests" have extended during the year by 421 square miles and 382 acres, the "Protected Forests" have diminished by 177 square miles and 409 acres. These results have come in some measure from the conversion of protected forests into reserved forests: altogether 177 square miles and 435 acres of protected forests have been converted into reserved forests; and 34 acres of protected forests have been removed entirely from forest conservancy management, and been made "Revenue waste," for purposes of cultivation or other uses. By rectification of areas 77 acres were added to, and 17 acres were reduced from, protected forests, during the year; and at the close of the year the only protected forests remaining in the Central Circle consist of 7,164 acres, equal to 11 square miles and 124 acres situated in the 8* marginally mentioned villages bordering the Syhadris in the Akola Táluka of the Ahmednagar District, and 670 acres equal to 1 square mile and 30 acres within the station limits of Mahábaleshvar in the Sátára District.

*1. Ghátghur.
2. Uddavné.
3. Panjré.
4. Shinganwadi.
5. Kumshet.
6. Ambit.
7. Pachhai.
8. Lohali Kotul.

18. The alteration of areas described above has been wrought by the following changes:—

(*a*) Additions made during the year:

| Division. | Reserved Forest. | | | | Protected Forest. | | | |
|---|---|---|---|---|---|---|---|---|
| | By Notification under Section 19, Forest Act. | | By rectification of area. | | By Notification under Section 28. | | By rectification of area. | |
| | Sq. m. | Acres. | Sq. m. | Acres. | Sq. m. | Acres. | Sq. m. | Acres. |
| East Khándesh ... | 11 | 204 | ... | ... | ... | ... | ... | ... |
| West Khándesh ... | 501 | 32 | ... | ... | ... | ... | ... | ... |
| Násik ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Ahmednagar ... ... | ... | 579 | ... | ... | ... | ... | ... | ... |
| Poona ... ... ... | 1 | 490 | 25 | 75 | ... | ... | ... | ... |
| Sátára ... ... ... | ... | 80 | 22 | 183 | ... | ... | ... | 77 |
| Sholápur ... ... | ... | 112 | ... | ... | ... | ... | ... | ... |
| Total ... | 515 | 217 | 47 | 258 | ... | ... | ... | 77 |

(*b*) Exclusions made during the year:

| Division. | Reserved Forest. | | | | Protected Forest. | | | |
|---|---|---|---|---|---|---|---|---|
| | By Notification under Section 26. | | By rectification. | | By Notification. | | By rectification. | |
| | Sq. m. | Acres. | Sq. m. | Acres. | Sq. m. | Acres. | Sq. m. | Acres. |
| East Khándesh ... | ... | ... | ... | ... | ... | ... | ... | ... |
| West Khándesh ... | 25 | 1 | ... | ... | 177 | 435 | ... | ... |
| Násik ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Ahmednagar ... ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Poona ... ... ... | ... | 57 | 59 | 512 | ... | ... | ... | ... |
| Sátára ... ... ... | 1 | 525 | 54 | 278 | ... | 34 | ... | 17 |
| Sholápur ... ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 26 | 583 | 114 | 150 | 177 | 469 | ... | 17 |

19. The proportion which forests bear to the territorial area in the different districts contained within the Central Circle may be seen from the following:—

| Districts. | Territorial area. | Forest area. | Percentage of Forests to area of District. | Population. | Acreage of Forest per head of Population. |
|---|---|---|---|---|---|
| | Sq. m. | Sq. m. | | | |
| Khándesh ... ... ... | 10,907 | 2,386 | 21·87 | 1,460,851 | 1·04 |
| Násik ... ... ... | 5,940 | 1,279 | 21·53 | 843,582 | 0·97 |
| Ahmednagar ... ... | 6,645 | 847 | 12·74 | 888,755 | 0·60 |
| Poona ... ... ... | 5,369 | 708 | 13·18 | 1,067,800 | 0·42 |
| Sátára ... ... ... | 4,987 | 659 | 13·21 | 1,225,989 | 0·34 |
| Sholápur ... ... ... | 4,542 | 278 | 6·12 | 750,689 | 0·23 |
| Total ... | 38,390 | 6,157 | 16·03 | 6,237,666 | 0·63 |

20. The selection of lands for incorporation in the forest reservation of the Central Circle has been concluded, and the sanction of Government has been accorded to the forest conservancy project of every revenue sub-division in the different districts; and all that remains to be done now is to give the finishing touches to the work by acquiring, as opportunity may serve, such occupied lands as still remain to be obtained inside the sanctioned lines of the boundaries of forests; and therefore the figures appearing above may be taken to represent the practically maximum areas which will be found in forests for years to come in the different districts.

21. These figures may provoke reflection as to whether the State forests which have been formed are sufficiently extensive, and in their spread are suitably located in all directions to promote all the interests, and to maintain all the harmonies dependent upon an efficient system of forest conservancy management in a country circumstanced and conditioned as the Central Division of this Presidency, where the rainfall is at all times uncertain and capricious, and is confined to a short season, the remaining portion of the year being dry, and where there is a great demand for timber and firewood. There are practically no private forests left undestroyed in the Násik, Ahmednagar, Poona, Sátára and Sholápur Districts above the ghâts, and there is a very noticeable absence of trees generally upon lands occupied for cultivation in the wide stretching champaign country of the eastern portion of the Deccan, including the whole of the Sholápur Collectorate. On the other hand the necessity for a very much larger supply of cheap fuel, and for a more general distribution of it, than is at present within the capabilities of the State forests in the champaign country in their position and their power as now existing, in order to lessen the consump-

tion of cowdung as fuel, and to permit of its more extended use for manuring fields of cultivation, is a question of the highest importance in the interests of agriculture. Moreover the influence on the climate of an extensive growth of trees for lowering the temperature and overcoming aridity, and for affording protection against winds and sun on the plains, is of equally great importance in the interests of the food supply for man and beast. The larger proportion of the forests in the champaign country of the Eastern Deccan contains very poor and hard soil: these lands had been entirely divested of all ligneous vegetation before they were placed under forest conservancy management, and it will take many years for firewood to be produced on them in such volume as to give an appreciable annual yield for the feeding of local supply. But the difficulty of obtaining more land possessing such good soil as is necessary for a quick growth of trees, and an early production of timber in these parts is seemingly insuperable; for it lies in the dearth of any suitable waste land, the property of Government; in the growth of population with a concurrently increasing demand for lands of good soil for purposes of cultivation; and in the heavy cost of acquisition of occupied lands, if acquisition were otherwise practicable. The forests on poor soil which may be taken at $\frac{3}{5}$th of the forest areas of the Eastern Tálukás cover uplands, watersheds and hill slopes; and have, in addition to supplying pasturage to the cattle of the country, important mechanical functions to perform; and they even now, when their reboisement is a long way off completion, arrest in large measure the off-flow of the rain water which falls upon them, storing it for a more gradual distribution in natural course; and they work, though still very imperfectly, as high level reservoirs for the natural irrigation of the country.

22. The forest conservancy project of every revenue sub-division which has been prepared by Revenue and Forest officers conjointly after very careful and detailed inspection of the ground with inquiries on the spot, and has been approved and sanctioned by Government, provides as perfect a system for the protection of hill slopes all over the country included in the Central Circle as could be devised, but several occupied holdings on the hill sides inside the forest boundaries, which honey-comb the reserves with patches of cultivation where they occur, still remain to be acquired.

23. In the Khándesh and Násik Districts especially, the forest reservations are as extensive and as desirably located as could be considered to be necessary on climatic, physical or other grounds; and very few, if any, occupied holdings remain inside the forest boundaries in these districts.

## (ii). FOREST SETTLEMENTS.

24. The only work which remained to be done at the commencement of the year consisted of the settlement under the provisions of Chapter II, of the Indian Forest Act—

(*a*) of such portions of the protected forests as are to be converted into reserved forests, and

(*b*) of such occupied lands situated inside the forest boundaries as may become waste and available for afforestation or be acquired by payment of compensation or by giving other lands in exchange for them.

25. The following table shows the settlement work accomplished during the year:—

| Divisions. | Square miles. | Acres. |
|---|---|---|
| East Khándesh ... ... | 11 | 204 |
| West Khándesh ... ... | 501 | 32 |
| Násik ... ... ... | ... | ... |
| Ahmednagar ... ... | ... | 579 |
| Poona ... ... ... | 26 | 565 |
| Sátára ... ... ... | 22 | 340 |
| Sholápur ... ... ... | ... | 112 |
| Total ... | 562 | 552 |

26. The occupied lands situated inside the sanctioned forest boundaries which have been obtained by payment of compensation or by giving other lands in exchange for them are as under :—

| Divisions. | By exchanges. Acres. | By purchase. | | Acreage rate. |
|---|---|---|---|---|
| | | Acres. | Payment. | |
| | | | Rs. | Rs. a. p. |
| East Khándesh ... ... | ... | 593 | 2,050 | 3 7 3 |
| West Khándesh ... ... | ... | 97 | 83 | 0 13 8 |
| Násik ... ... .. | ... | ... | ... | ..... |
| Ahmednagar ... ... ... | 252 | 104 | 505 | 4 13 8 |
| Poona ... ... ... | 467 | ... | ... | ..... |
| Sátára ... ... ... | 1,363 | 32 | 10 | 0 5 0 |
| Sholápur ... ... ... | ... | ... | ... | ..... |
| Total ... | 2,082 | 826 | 2,648 | 3 3 3 |

27. The Forest Settlement Office of the *Khándesh District* is held by an Assistant Collector in addition to his own revenue and magisterial duties. Mr. C. G. Dodgson, I. C. S., was in charge from the opening of the year up to the 22nd February 1894, when he proceeded on leave, and the Collector of the district kept the office until it was taken over by Mr. J. H. DuBoulay, Assistant Collector, on the 16th March 1894, who continued to do duty as Forest Settlement Officer up to the close of the year. The settlement of the Nandurbár and South Pimpalner reserved forests was completed. Special forest boundary marks were erected, under the supervision of the Forest Settlement Officer, to demarcate the boundaries of the reserved forests in the Nandurbár Táluka, and in a portion of the Pimpalner Táluka also; 689 acres and 27 gunthas of occupied lands inside forest boundaries were acquired by payment of compensation, amounting to Rs. 2,133-5-4 in the Jalgaon, Sindkheda and Taloda Tálukas; 149 square miles and 183 acres of lands were provisionally notified under Section 4 of the Forest Act; 512 square miles and 236 acres of lands which had undergone settlement were notified under Section 19 of the Forest Act, and were declared to be reserved forest; and the protected forests remaining in the district were all disforested. Very excellent work has been performed during the year by Messrs. Dodgson and DuBouly, who deserve much credit.

28. In the Násik Collectorate, the Assistant and Deputy Collectors are ex-officio Forest Settlement Officers in respect of the tálukas in their respective revenue and magisterial charges. Settlement work is practically finished. Twelve acres and 17 gunthas of occupied lands inside the forest boundaries were acquired, and were provisionally notified under Section 4 of the Forest Act, preliminary to their settlement.

29. Ráo Bahádur Venkatesh Bápuji Vádekar, District Deputy Collector, has been holding the office of Forest Settlement Officer of the Ahmednagar Division in addition to his revenue and magisterial duties throughout the year: 579 acres of occupied lands inside forest boundaries have been acquired, have undergone settlement, and have been declared to be reserved forest, by notification published under Section 19 of the Forest Act; and 216 additional acres have undergone settlement, but have not yet been notified under Section 19. Copies of registers of all public and private rights affecting the reserved forests in all the tálukas have been prepared and supplied to the Divisional Forest Officer. Mr. Vádekar has done good service for the forest administration of the Ahmednagar District during the year.

30. The Forest Settlement Office of the Poona Division was in the charge of Mr. C. P. B. Wiltshire, I. C. S., from 1st July to 28th October 1893, and of Mr. H. W. J. Bagnell, during the remainder of the year: 466 acres of occupied lands inside of the forest boundaries have been acquired for afforestation by giving other lands in exchange for them: 1,130 acres and $10\frac{3}{4}$ gunthas of lands

which have ungergone settlement have been declared to be reserved forest under Section 19: these lands are situated in the Junnar, Mával, Indápur and Mulshi ranges: and 1,572 acres and 37 gunthas of proposed reserved forest were undergoing settlement when the year closed. Forest registers according to Symond's manual have been prepared for the villages of the Mulshi Peta, where the revision survey settlement has been introduced recently; and copies have been furnished to the Mahálkari and to the Divisional Forest Officer. The Forest register of the Purandhar Táluka has been drawn up and supplied to the Divisional Forest Officer: 56 acres and 34 gunthas of reserved forest in the Bhimthádi Táluka and 30¾ gunthas in the Haveli Táluka have been disforested. The Forest Settlement Officer has also been employed in arranging, in communication with the Divisional Forest Officer, a tripartite classification of the reserved forests of the district, under "Forest Proper", "Fuel and Fodder Reserves" and "Pastures." Very good progress has been made by the Forest Settlement Officers in the Poona Division.

31. Mr. S. R. Arthur, I.C.S., was Special Forest Settlement Officer for the Sátára Collectorate up to the 27th March 1894, and on the 28th of that month he assumed charge of the Assistant Collector's revenue and magisterial duties, holding the Forest Settlement Office in addition thereto. The forest registers for the whole district have been completed, and a copy supplied to the Divisional Forest Officer: the survey numbers and areas of the revision revenue survey have been entered in these registers for all the tálukas save Jávli, of which the revision survey maps have not been issued yet: the preparation of this register has brought to light several errors in acreage in the original survey, the figures of which have been in use hitherto: these have now been rectified: it has also brought to notice that several survey numbers in possession of the Forest Department which had been notified, under Section 4, years ago, had not been notified under Section 19 subsequently, as no inquiry respecting rights affecting these lands had been undertaken: likewise that other survey numbers also in possession of the department had not even been notified under Section 4. These omissions have now been made good. 79 acres and 23 gunthas have been added by notification under Section 19 of the Forest Act to reserved forest in the Mahábaleshvar Range, after undergoing settlement, and 1,165 acres and 6 gunthas have been disforested under Section 26 of the Forest Act from reserved forest, and 34 acres and 2 gunthas from protected forest, for the reason that these lands were either outside the sanctioned forest boundaries, or were adjoining village sites or hamlets, and were not required for Forests. 4,054 acres 6 gunthas have been notified provisionally under Section 4 of the Forest Act during the year, and were with other lands which had been similarly notified previously, making up 11,067 acres and 27 gunthas altogether, still undergoing settlement proceedings when the year closed. 1,363 acres of occupied lands inside the forest boundaries have been obtained by the Forest Settlement Officer by giving other lands outside the forests in exchange for them; 32 acres and 20 gunthás in the village of Paneri in the Pátan Range were obtained by payment of Rs. 10 in compensation, and a sum of Rs. 69 was given to the occupants of some huts inside the Niwle Forest of the Shirála Range to compensate them for removing to another site outside the forests. The Forest Settlement Officer has also, during the year, completed inquiries, with the exception of one village, into the forest rights claimed by Inámdárs in alienated villages, and Government have passed orders upon them in 11 resolutions. Village Form No. 1 A showing for each village the survey numbers and acreage in forests and the rights in each number, has been prepared in duplicate for the whole district, and one copy is being sent to the Range Forest Officer for his use, and one to each village for record with other village forms. The revision revenue survey having been applied in 8 tálukas, lists of the revision survey numbers corresponding with the old survey numbers, which have been notified as reserved or protected forest, have been drawn up for publication in the *Government Gazette*. Mr. Arthur has, it will be seen, worked very industriously during the year towards completing the afforestation of lands according to the different projects for reservation which have been approved and sanctioned by Government, and towards securing a strictly legal settlement of reserved forests with complete and accurate records of the same, which will be of the

highest value for years to come; and he has thus rendered very important service to the forest administration in the Sátára District.

32. Assistant and Deputy Collectors have been undertaking such forest settlement work as remains to be done in the Sholápur District, where a few occupied lands inside the sanctioned forest boundaries have still to be acquired: 148 acres and 19 gunthas were obtained, and provisionally notified during the year, of which 112 acres and 2 gunthas were settled and gazetted, and 36 acres and 17 gunthas were still undergoing settlement.

33. The following table shows the forest lands and waste lands, the property of Government which having been provisionally notified under Section 4 of the Forest Act were still undergoing forest settlement inquiries when the year closed in the different divisions:—

| Division. | Square miles. | Acres. |
|---|---|---|
| East Khándesh ... ... | 3 | 526 |
| West Khándesh ... ... | 145 | 297 |
| Násik ... ... ... | ... | 12 |
| Ahmednagar ... ... | ... | 216 |
| Poona ... ... ... | 2 | 293 |
| Sátára ... ... ... | 6 | 214 |
| Sholápur ... ... ... | ... | 36 |
| Total ... | 158 | 314 |

All the forests which were under conservancy administration when the Forest Act came into force, and were declared by notifications published in the *Government Gazette* under Section 34 of the Indian Forest Act to be reserved or protected forest, as their cases required respectively, have undergone forest inquiry, settlement and record; and no forest land of this class remains in the Central Circle in an unsettled condition.

34. No recommendations have been made by Forest Settlement Officers regarding concessions of *Privileges* upon the forests in favour of persons or communities or tribes; and no new order has been passed by Government in the matter; and no changes have been made in the "Privilege Codes" and rules of any division, during the year of this report.

35. The expenditure which has been charged in the forest accounts of the different districts on account of the cost of forest settlements during the year is shown in this table:—

| Divisions. | Office Establishment. | | Contingencies. | Total. |
|---|---|---|---|---|
| | Pay. | Travelling allowance. | | |
| | Rs. | Rs. | Rs. | Rs. |
| East Khándesh ... ... ... ... | 3,425 | 726 | 410 | 4,561 |
| West Khándesh ... ... ... ... | | | | |
| Násik ... ... ... ... ... ... | ... | ... | ... | ... |
| Ahmednagar ... ... ... ... ... | 180 | 90 | 159 | 429 |
| Poona ... ... ... ... ... ... | 1,132 | 410 | 348 | 1,890 |
| Sátára ... ... ... ... ... ... | 1,970 | 106 | 432 | 2,508 |
| Sholápur ... ... ... ... ... | ... | ... | ... | ... |
| Total ... | 6,707 | 1,332 | 1,349 | 9,388 |

36. The pay and travelling allowance drawn by the Forest Settlement Officers themselves are not charged in the forest accounts, but to their own department. Mr. S. R. Arthur was the only special Forest Settlement Officer, and he held this appointment, as has already been stated, up to the 27th March 1894, his salary

for that period, viz., from 1st July 1893 to 27th March 1894, amounted to Rs. 7,105 and his travelling allowance to Rs. 1,750. The cost of the establishments of the Forest Settlement Offices and of their contingent expenditure is only charged to Forests, and a sum of Rs. 9,388 has consequently been debited to A VIII (*b*).—Cost of Forest settlements.

## (iii). DEMARCATION.

37. The demarcation on the ground of the boundary line of forests, by cutting lines clear of vegetation where required, and by erecting special forest boundary marks of a prescribed specification at visible distances, one from the other, to be the outward visible sign of forest reservation, was carried on in the several divisions to the following extent :—

| Divisions. | Length of boundary demarcated in miles. | Number of Special Forest Boundary Marks erected. | | | Expenditure of the year. |
|---|---|---|---|---|---|
| | | Large. | Small. | Total. | |
| East Khándesh ... ... ... | ... | 1 | ... | 1 | 17 |
| West Khándesh ... ... ... | 300 | 296 | 2,500 | 2,796 | 1,020 |
| Násik ... ... ... ... ... | 343 | 4,264 | 7,775 | 12,039 | 5,192 |
| Ahmednagar ... ... ... ... | 68 | 1,054 | 13 | 1,067 | 555 |
| Poona ... ... ... ... ... | 49 | 781 | ... | 781 | 471 |
| Sátára ... ... ... ... ... | 198 | 110 | 3,838 | 3,948 | 843 |
| Sholápur ... ... ... ... | 72 | ... | 960 | 960 | 313 |
| Total ... | 1,030 | 6,506 | 15,086 | 21,592 | 8,411 |

38. A comparison between the progress made in this important work during 1892-93 and the year of this report is given below :—

| Divisions. | During 1892-93. | | During 1893-94. | |
|---|---|---|---|---|
| | Miles of boundary line demarcated. | Cost. | Miles of boundary line. | Cost. |
| | | Rs. | | Rs. |
| East Khándesh ... ... ... ... | 4 | 58 | ... | 17 |
| West Khándesh ... ... ... ... | 451 | 1,978 | 300 | 1,020 |
| Násik ... ... ... ... ... ... | 319 | 3,929 | 343 | 5,192 |
| Ahmednagar ... ... ... ... ... | 117 | 1,171 | 68 | 555 |
| Poona ... ... ... ... ... ... | 178 | 1,846 | 49 | 471 |
| Sátára ... ... ... ... ... ... | 528 | 1,583 | 198 | 843 |
| Sholápur ... ... ... ... ... | 133 | 517 | 72 | 313 |
| Total ... | 1,730 | 11,082 | 1,030 | 8,411 |

39. In the East Khándesh Division, a new masonry pillar was erected at a cost of Rs. 17-8-0 upon the frontier of the British village Charthane in the Edlabad Range and of Málgujari village of Jámti in the Central Provinces, to replace one which had seemingly been removed by the villagers of Jámti with the object of annexing a large triangular piece of forests measuring about 1,000 acres : some timber was felled and removed from this land, and the offenders were caught and were prosecuted, but they were discharged on the grounds of want of criminal intention. The boundaries of the forests in this division have been demarcated from end to end already by the Forest Settlement Officer, but the pillars are very far apart and beyond visible distance, one from the other, consequently intermediates have to be built, as the want of a clearer alignment has been felt. A sum of Rs. 95 was expended in repairing old pillars.

40. In the West Khándesh Division, the Forest Settlement Officer built 1,939 pillars on the boundaries of the forests in the Nandurbár and Pimpalner

Ranges at a cost of Rs. 814 during the year; and the Divisional Forest Officer built 857 new intermediates at a cost of Rs. 206 and repaired 1,120 old pillars at an expenditure of Rs. 261. It will take one or two more seasons for the Forest Settlement Officer to complete the demarcation on the ground of the whole of the boundary lines of the forests in this division: but the building of the intermediate pillars by the Divisional Forest Officer requires to be carried on with vigour.

41. In the forests of the Peint Táluka, below the ghâts, in the Násik Division, the clearing of the forest boundary line is a heavy work, but it, with the erection of special boundary marks, was pushed on very energetically under the personal direction of an Extra Assistant Conservator; and in the months of April, May and June 1894, it was carried on as a relief work for forest villagers as there was some scarcity and dearness of food in parts of the Peint Táluka. In the Igatpuri, Yeola and Málegaon Ranges also demarcation received attention. The Collector has remarked that "Mr. Winter, the late Collector, brought to my notice the assistance Mr. Dasai had been in providing work in Peint. The people, however, did not avail themselves of the facilities offered to any great extent." Rs. 598 were expended in maintaining, by repairs to old marks, &c., the forest boundaries demarcated in previous years.

42. In the Ahmednagar Division, demarcation has been permitted to languish. Out of 829 forest villages, the demarcation of forest boundaries by special forest boundary marks has been completed in 132 only, leaving 697 yet to be undertaken; the forest boundaries in these villages are defined at present by the ordinary revenue survey boundary marks.

43. In the forests of the Ambegaon Range, considerable progress has been made in defining the forest boundaries, by marking them off so clearly that they must be seen when approached, and cannot be mistaken by any person: but in other ranges, the work has been delayed owing, the Divisional Forest Officer reports, to the absence of Range Forest Officers on leave through sickness, &c.

44. Less work was done in the Sátára and Sholápur Divisions also than should have been done; but here, as elsewhere, a comparison between the progress made this year and last is open to the correction, that the report for 1892-93 embraced a term of 15 months containing two hot seasons, while the present report for 1893-94 treats of 12 months only: further the work of erecting marks is carried on generally to a much greater extent in the months of April and May than at other times of the calendar year.

## (iv). SURVEYS.

45. Forest surveys were undertaken during the year in the Ahmednagar, Poona and Sholápur Divisions by No. 17 Party of the Topographical Survey of the Government of India, known as the Bombay Forest Survey Party.

This party consisted practically of—

1 Superintendent.
1 Assistant Superintendent.
2 Sub-Assistant Superintendents.
2 Surveyors.
21 Sub-Surveyors.
1 Writer.
13 Temporary sub-surveyors with a number of peons and other inferior servants.

46. Colonel H. S. Hutchinson, I. S. C., Superintendent, was in charge of the party up to the 27th April 1894, on which date he was very unfortunately killed by a wounded tiger; and then Mr. C. E. Tapsell, Extra Assistant Superintendent, 5th Grade, held charge temporarily up to the 10th May, when Major J. R. Hobday, assumed the control of the party.

Colonel Hutchinson took the field about the 15th November 1893, and personally superintended the 16″ detail survey in the Shrigondá Táluka of the Ahmednagar Division, where an area of 33·3 square miles was completed: he then visited other survey camps working in the Central Circle, and finally left for Kánara and the Southern Circle on the 10th February 1894.

Mr. Lawson, ex-Assistant Superintendent, 1st Grade, went out into the Karmála Táluka of the Sholápur District on the 8th November and conducted the 16" survey up to the 15th December, completing an area of 24 square miles, when he retired from the service on superannuation pension after a meritorious service of 31 years in his department.

Messrs. S. and C. Norman, Sub-Assistant Superintendents, 1st Grade, who were in charge of Nos. 2 and 3 camps respectively, each containing 7 plane tablers and 1 pupil, proceeded about the 13th November to complete the area remaining to be surveyed on the 8" scale in the Junnar Range of the Poona Division, and to survey the river side bábool reserves in the vicinity on the scale of 16"=1 mile. The area completed on the former scale amounted to 96·90 square miles, and on the latter to 7·70 square miles, giving a total outturn of 104·60 square miles, which was finished by about the 10th February. Colonel Hutchinson visited these camps on the 6th January, and remained till the completion of the work. No. 2 camp then moved down the Malsej Ghát in the Northern Circle and No. 3 camp proceeded to the Pen Táluka in the Kolába Division of the Southern Circle.

Surveyor Gopál Vishnu completed 200 square miles of advance triangulation in the Poona Division.

47. During the recess, *i. e.*, the rainy season, a very large outturn of mapping has been executed in the head-quarters station, Poona: and these maps are accurate and well drawn maps of the country.

48. The details of the work of the forest year are as under:—

| Divisions. | Description of work. | Scale. | Area in square miles. | Cost. |
|---|---|---|---|---|
| Ahmednagar ... | Detail survey ... ... ... | 8" | 17·13 | 737 |
| | Do. ... ... ... | 16" | 27·71 | 4,037 |
| Poona .... ... | Triangulation ... ... ... | 4" | 200·0 | 2,380 |
| | Detail survey ... ... ... | 4" | 8·6 | 1,068 |
| | Do. ... ... ... | 8" | 95·52 | 14,276 |
| | Do. ... ... ... | 16" | 11·10 | 1,999 |
| Sholápur ... | Detail survey ... ... ... | 16" | 26·20 | 3,792 |
| | Total detail survey ... | ... | 186·26 | 28,289 |

and the cost rates of the different scales work out as under:—

4" scale Rs. 84-9-3 per square mile.
8" „ 134-13-7 „ „
16" „ 179-6-7 „ „

49. A comparison of the outturn and of the cost of the forest surveys made in the survey years 1892-93 and 1893-94 respectively, is presented in the following figures:—

| Year. | Triangulation. | | Detailed Survey. | | | | | | Rate per square mile. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 4" Scale. | | 8" Scale. | | 16" Scale. | | | | |
| | Area. Square miles. | Cost. | Area. Square miles. | Cost. | Area. Square miles. | Cost. | Area. Square miles. | Cost. | 4" | 8" | 16" |
| 1892-93 ... | 230 | 3,318 | ... | ... | 109 | 15,157 | 21·50 | 4,080 | 14 6 10 | 139 0 11 | 189 12 3 |
| 1893-94 ... | 200 | 1,192 | 8·60 | 727 | 112·85 | 15,214 | 65·0 | 11,662 | 84 9 3 | 134 13 7 | 179 6 7 |

50. It will be seen that the cost of the survey in the year of this report is less all round than it was last year; for triangulation the decrease comes to Rs. 8-7-5 per square mile, for topography on the 8" scale Rs. 4-3-4 and on the 16" scale Rs. 10-5-8 per square mile. This reduction though not inconsiderable

still leaves the cost of the work higher than it might possibly be, and probably the cause of this high rate may be in the manner in which the charges on account of No. 17 Party of the Government of India's Topo Survey are distributed and debited.

51. The scale on which revenue survey village maps are published is 8″= one mile: this scale is much too small for working the bábool reserved forests which consist of small blocks mostly on the banks of rivers and streams; even if the revenue survey maps furnished accurate skeleton plans of the survey numbers, comprising the river side bábool reserves, which they do not. The revenue survey maps do not aspire to show the topographical features of survey numbers, and they have consequently no claim to be a correct picture of the ground they are intended to show the outlines of. But these outlines or skeleton shapes are also very inaccurate and unsatisfying. The Forest Settlement Officer has reported that the *net difference* in the forest areas of the Haveli Range of the Poona Division, where there are many river side bábool reserves, between the measurements made by the old and the revision revenue surveys respectively, amounts to nearly *10,000 acres*, and in every one of over 60 river side reserved forests in the valley of the Bhima in the Poona District which have been surveyed and mapped on the 16″= 1 mile scale by the forest survey, the work has shown a difference either more or less than the area given in the records of the revision revenue survey. The treatment of these reserved forests is necessarily of a very elaborate nature, requiring the use of large scale maps which are invaluable, if for nothing else, still for the proper protection of boundaries against encroachment; but they are essential to the preparation of the working plans of these areas, because the forest blocks are small in size, and under a rotation of 40 years the normal compartment and coupe area is very small. The forest blocks are small, because other lands are not available to increase their dimensions; and for a proper service of local supply large forest blocks are not desirable. The soil in them varies greatly in character: there is an irregular fringe on the river border of deep soil on which the bábool tree grows vigorously and is the predominating if not the only tree, and this is subjected to clear fellings, while the poorer soil on which the growth is more mixed is subjected to a different treatment: clear fellings of bábool are made because the tree in the Deccan has not been found to reproduce as well under cover as on open ground, and because reserves retained on foot interfere with the breaking up of the surface soil, by the plough for treatment for the purpose of reproduction from seeds: these fringes where the bábool tree predominates potentially are liable to submersion when the river rolls down in flood from the Ghâts; and consequently to guard against scour and erosion, it is undesirable to have any large area denuded of the protecting ligneous vegetation. Maps are required to be of a large enough scale to show compartments of from one acre and upwards in size, with their variations of soil. These river side reserves protect the banks of the rivers against erosion; and they feed local supply in firewood, and at the same time provide fodder grass and grazing. Firewood in the treeless Deccan is Gold. The river side reserves in the Bhima valley furnish almost entirely the supply of firewood, required for the City of Poona, with its population of 118,790 souls, and the Military and Civil populations of Poona and Kirkee which are very large and which consume great quantities of firewood, and these river side reserves are also invaluable in the service of agriculture in the champaign country, inasmuch as they work towards the saving of cowdung for use as manure for the land instead of being put to an improper use, *viz.*, as a substitute for fuel, whereby the land is deprived of a fertilising power which is available on the spot, and this deprivation robs crops of their due increase, which reacts on the food supply of the country, and the profits of the cultivator, and thereby on the comfort and the contentment of the peasantry. Bábool is the best esteemed as well as the highest priced firewood in the City and Cantonment of Poona and the surrounding country. If the reserved forests in the plains on river sides were to be abolished, the City of Poona could not be supplied with firewood of such good quality, and with no firewood save at enormous cost, for the carriage of the woods inferior to bábool from long distances would raise the price of the article—this necessary of life—to such a pitch as to cause distress and outcry. The bábool, Acacia arabica, is *the tree* of the country. A single tree of consider-

able girth has been sold for Rs. 80 in the river side reserved forests of the Poona District: its timber is used largely for cart building, for the naves, spokes and felloes of wheels, and for the pole and body of the carts which carry all the traffic of the country side. The timber is used also for house-building, for farming and other implements, such as plough shares, oil and sugar presses, tool handles, &c. Its gum is used by the calico-printer and for other industrial as well as medicinal purposes, and is a substitute for gum arabic. Its bark is largely used by Indian tanners in the preparation of leather; also as a dye, and also medicinally. Its pod is in request as a tanning material as it contains a high percentage of tannin, and imparts a good and uniform color to leather; and it is also in great request for feeding sheep and goats, &c. Its leaves are used as a tan or dye, and they constitute an important fodder in times of scarcity as was appreciated in the Deccan Famine. The fresh foliage appears on the tree at the commencement of the hot weather just when other fodder plants fail; and when the country is parched up and sun-scorched, then the shade afforded by a bábool reserved forest in the very height of the hot season is wonderfully grateful to animals, and to human beings, all around being coverless and burning. The tree not requiring rain to burst out into green leaf gives it peculiar value in this respect. Its small branches and thorny twigs are employed to fence fields while crops are growing and ripening. In the management of the river side bábool reserved forests wide employment is given to unskilled village labour in felling, exploiting timber, carting it to markets, and in preparing the ground for reproduction, sowing, &c. During the year of this report in the Indápur Táluka, in the extreme east of the Poona Division, a coupe of $4\frac{7}{40}$ acres, containing 485 trees, sold on foot for Rs. 270, or more than Rs. 60 the acre. In the Sirúr Range the trees on $43\frac{6}{40}$ acres sold for Rs. 1,365: in the Haveli Range the trees on $18\frac{1}{2}$ acres realised Rs. 1,146. These prices will show the scarcity of timber in these parts, the great demand for it and the grand future before the forests in supplying local wants, if their productive capabilities are fully developed. The cost of the accurate forest survey maps of the river side bábool reserves prepared by the forest survey has been returned at Rs. 179-6-7 per square mile this year, and this rate works out to Re. 0-4-5 per acre—a cost incurred once and for all time. The revenue derived from grass or grazing, or bábool pods or thorns, or any minor product of these reserved forests in a single year, let alone the timber more than pays for the everlasting map. The service that these small reserved forests scattered over the face of a comparatively treeless cultivation country do, both directly and indirectly, to agriculture is so incalculably great, and their maintenance in the highest state of productiveness to the people and to the State, is so important as to justify the cost of the large scale survey maps, which have by experience been found to be necessary to their proper management, in view to the highest possible outturn of timber and other produce being worked up.

# CHAPTER II.

## MANAGEMENT OF STATE FORESTS.

### I.—REGULATION OF MANAGEMENT.

#### (*a*).—Working Plans.

52. Following the breaking up of the Northern Circle with the transfer of its Working Plans Division to the new Northern Circle, in January 1893 the necessity arose for forming a Working Plans Division for the Central Circle, but this could not be effected until Mr. L. S. Osmaston returned to duty from sick leave in December 1893, and an officer to organize an establishment became available.

53. In the meanwhile, Mr. T. B. Fry, Deputy Conservator of Forests, 2nd Grade, and Divisional Forest Officer, Working Plans, Northern Circle, was permitted by Government to reside in Poona during the rainy season of 1893, on the condition that "his services will be available during that period for such work in addition to the duties of his own office as the Conservator, Central Circle, may assign to him in connection with the preparation of working plans for the forests of the Central Circle": and accordingly the demarcation of compartments to be coupes of the season 1893-94 was undertaken by Mr. Fry's establishment under

his direction in the Haveli, Dhond, Sirúr, Bhimthadi and Indápur Ranges of the Poona Division; in the Shevgaon, Ráhuri, Kopargaon and Sangamner Ranges of the Ahmednagar Division; in the Igátpuri Range of the Násik Division; and in the Karmála, Mádha and other ranges of the Sholápur Division. The surveyors were out on this demarcation from about the middle of July up to Christmas 1893, and Mr. Fry made a tour in the Sholápur District to supervise and direct during portions of November and December.

54. Mr. Osmaston was then attached to the Central Circle for duty on working plans after the Christmas vacation, but he was given no office or other establishments for working in the forests, however Mr. Osmaston accompanied the Conservator on tour in the Ahmednagar, Násik, the East and the West Khándesh Divisions, inspecting forest blocks and compartments under exploitation, gathering local knowledge, and collecting information and data for the preparation of working plans. On the 13th April, this officer had to take charge of the Násik Division on the departure of Mr. Betham on leave to Europe, and he held it till the 2nd of May following, when he was relieved by Mr. F. R. Dasai; and Mr. Osmaston then marched towards Poona inspecting the teak forests of the Ahmednagar and Poona Divisions by the way, and he likewise visited the ever-green forests on the Ghâts in the Mával Range of the Poona District.

55. No elaborate working plans involving detailed enumeration surveys with the classification of trees, the calculation and determination of an annual yield in timber based on averages, which may turn out to be more or less approximate when put to the test of actual working, and on other mathematical theories of Forestry which may not come off under the touchstone of experience, have been attempted. But rough and ready projects are being drawn up for bringing the whole forest region of every division under systematic treatment, for its improvement, and at the same time to provide for meeting the demands of local supply as far as it is possible to do so, with due regard to a sustained yield, and to the maintenance and improvement of the factors of the localities. A system of numerous small forest blocks in a country such as the Central Circle is seemingly the best calculated to satisfy, in the greatest degree attainable, all that be reasonably expected and required of the forest management. A large number of forest blocks with one compartment in each, which is treated for the exploitation of timber and other produce, and for natural combined with artificial reproduction, furnishes many centres for the employment of unskilled village labour, and the utilisation of village transport for the conveyance of timber and other forest produce to their destinations when removed from the coupes. In every Deccan village there are carts and bullocks, and when the latter are not employed in agriculture their owners are very glad to secure their employment in traffic; and many coupes also provide as many centres for a much more general distribution of timber and other forest produce over the face of a district than could be secured by a few fellings of larger individual spread, but located at considerable distances apart. The working plans are based entirely on area, for it is not possible to foresee the future of the forests, such as they are, from their present condition and their past history. Briefly then the forests of every range which corresponds with a revenue sub-division, are being differentiated into as many small forest blocks as local circumstances and existing conditions may require; each of these forest blocks is considered to be a separate unit of working, and it is sub-divided into 40 working compartments, to be exploited in turn, if there is anything to fell and remove, and to be treated for regeneration alone during the first revolution, if there is nothing to fell and carry out. Cultural rules are prescribed for regulating the extent of the felling, and the selection of trees to be reserved within the compartment which is to become the coupe of the year, because in making fellings the nature of the soil, the climate, species, and even individual trees require to be considered in guiding the axe. The following are the rules in observance for the deciduous forests in which the teak tree predominates:—

(A). Quality of standard:

1*st*.—Trees to be marked in reserve should, if possible, not be less than 18 inches girth at breast-height; but may be of any greater size, provided they are healthy and likely to live through the rotation.

2*nd.*—Seedling trees are to be preferred as standards; otherwise coppice shoots from a small stool, straight clean-stemmed, and with a strong leader should be chosen. If really promising young trees cannot be found, then the healthiest trees, those most likely to produce good seed, must be marked.

3*rd.*—As much as possible trees of various kinds should be reserved, but the most valuable kinds should be preferred.

4*th.*—If the existing crop is nearly pure teak, special care must be taken to reserve other kinds, even if good trees cannot be found: similarly, if teak is very scarce, even inferior teak trees should be reserved.

5*th.*—The quality of the trees to be reserved must be carefully considered; but on steep slopes, tops of hills, ridges, &c., whatever is available must be reserved.

6*th.*—Fruit trees, such as mango, mhowra, toddy-trees, temburni and apta trees, if sound and flourishing, should, as a rule, be reserved.

7*th.*—Very inferior kinds of trees which have no value as timber and very little as firewood should be kept as standards only when other kinds of trees are not obtainable.

(*b*). Number and Distribution of Standards:

8*th.*—All promising young trees of any valuable kinds under 12″ girth at breast-height shall be preserved, and shall not be felled.

9*th.*—On flat, undulating, or gently sloping ground an average of 15 trees to the acre to be reserved.

10*th.*—On steep slopes up which a man can walk without much difficulty, an average of 20 trees to the acre.

11*th.*—On very steep slopes where a man must climb rather than walk, an average of 30 trees to the acre.

12*th.*—Crests of hills, ridges, precipitous upper slopes require protection, and all trees suitable for reservation should be kept.

13*th.*—Heads or commencements of water-courses require protection, and standards of all kinds should be reserved in clusters or groups in such places.

14*th.*—Along banks of rivers or large nálás, trees should be freely reserved up to a distance of about 20 yards from the edge of the bank.

15*th.*—Blanks within a coupe require special attention; all trees, however poor, within them must be preserved, as well as a fringe all round.

56. The suitability of the system to the trees to be found in the forests is one of the main points to be attended to, and in fixing the revolution at 40 years, as has been adopted generally for all the forests, due provision has been made for allowing a fair period of life-time to trees of all kinds in the forests. In Forestry trees, as a rule, are felled before they have reached the natural end of their life. In the case of river side bábool reserves in the Deccan, experience has shown that a tree attains a girth of 4 feet in about 40 years, and after this the tree begins to become unsound internally: therefore the bábool tree is subjected to a system of clear cutting, and the ground cleared is treated for artificial regeneration; or in other words, at the end of the rotation the wood is cleared off the area and the process of creation is recommended. In the mixed and deciduous forests where the teak trees predominate such trees as promise to outlive the rotation, or another period of 40 years, are reserved and are not felled; and thus a life-time of 80, 120, 160, or 200 years even may be given to an individual teak or other long-lived species under a treatment of the selection of the fittest at the time when the revolution brings a compartment to become the coupe of the year. In the region of heavy rainfall where the forests are evergreen only trees that are being suppressed, and those that have no future are removed, here the weight of rain water that falls on the ground is excessive,

and its eroding potentiality in descending steep hill slopes is a danger to be guarded against. A rotation of 40 years for a forest block gives a convenient arrangement for working the opening and closure of forests for grazing.

57. The new differentiations of forest blocks which have been made during the year may be returned as under:—

| Divisions. | Area divided. Acres. | Number of blocks. |
|---|---|---|
| East Khándesh ... ... ... | 41,270 | 9 |
| Násik ... ... ... ... | 97,025 | 23 |
| Poona ... ... ... ... | 116,711 | 64 |
| Sátára ... ... ... ... | 14,253 | 13 |
| Sholápur. ... ... ... | 2,638 | 7 |
| Total ... | 271,897 | 116 |

And in addition thereto, the number of compartments which had their boundaries demarcated on the ground to become coupes of the year in forest blocks which had been formed before 1893-94 are as under:—

| Divisions. | Number. | Area. |
|---|---|---|
| | | A. g. |
| East Khándesh ... ... | 2 | 88 0 |
| West do. ... ... | 31 | 7,765 0 |
| Násik ... ... ... ... | 50 | 4,819 17 |
| Ahmednagar ... ... ... | 30 | 1,307 9 |
| Poona ... ... ... ... | 51 | 188 14 |
| Sátára ... ... ... ... | 10 | 622 37 |
| Sholápur ... ... ... | 14 | 603 33 |
| Total ... | 188 | 15,394 30 |

58. The proportion of forests which has been blocked and is under systematic management is shown by the following figures:—

| Divisions. | Forest Area. | Area differentiated up to end of 1893-94. | Area still remaining. | Percentage of forest under detailed treatment. |
|---|---|---|---|---|
| | Sq. m. Acres. | Sq. m. Acres. | Sq. m. Acres. | |
| East Khándesh... ... ... | 807 359 | 69 453 | 737 546 | 8·66 |
| West do. ... ... | 1,578 485 | 88 444 | 1,490 41 | 5·63 |
| Násik ... ... ... | 1,279 129 | 178 0 | 1,101 129 | 13·91 |
| Ahmednagar ... ... | 846 374 | 67 40 | 779 334 | 7·91 |
| Poona ... ... | 708 224 | 220 270 | 487 594 | 31·07 |
| Sátára ... ... | 658 616 | 85 175 | 573 441 | 12·89 |
| Sholápur ... ... | 278 85 | 202 132 | 75 593 | 72·66 |
| Total ... | 6,157 352 | 911 234 | 5,246 118 | 14·79 |

59. The laying out of the boundaries of all these blocks upon the ground has not been attempted; and the laying out of the boundaries of their component compartments is a work that will take years to accomplish unless special arrangement is made by organizing large establishment of surveyors under the Divisional Forest Officer, Working Plans. At the most only one compartment

to become the coupe of the year for exploitation and subsequent treatment for regeneration can be laid out in the more accessible blocks of different ranges.

60. The more intense or detailed the management the greater is the call upon the intelligence, industry and activity of the Forest Staff, and as the essence of the working plans lies in the application of the cultural rules for selecting the trees to be reserved, and those to be felled, within a coupe, it naturally follows that where forest areas are very widespreading, a considerable establishment of specially trained foresters is required for the technical work of preparing the compartment of every forest block which is to become the coupe of the year. A forest guard recruited from the wild tribes, or from the more civilized classes of the peasantry of Western India, who has received no technical teaching, is quite unfitted to perform such work, and the consequence is that interests which are very valuable suffer for the paucity of educated men.

### (*b*).—Annual Plans of Operations.

61. The annual plans of operations were, as usual, drawn up by the Divisional Forest Officers and were submitted to the Conservator through the respective Collectors with the Budget appropriation statements, after the figures of the sanctioned Budget Estimates had been communicated, and they provided among other operations for the exploitation of timber and firewood by departmental operations as well as by purchasers and consumers at their own expense, for the departmental collection, and in some cases by purchasers, of the hirda fruit (Terminalia chebula); the collection of shikakai (Acacia concinna) by purchasers, the extraction of bámboos by contractors and by purchasers, and by consumers on permits; for the sale of grass to be exploited by hand; for grazing on auction sales by permit fees. Grazing to agricultural cattle was permitted free of charge, and the Bhil privilege-holders in the two divisions of Khándesh were allowed to cut and remove timber and bamboos and other forest produce from the Sátpuda forests in the exercise of their conceded privileges, and under the arrangements of the annual plans of operations local demands were satisfied as far as possible, and the trade in timber, &c., was fed according to its demand and to the capabilities of the forests.

## II.—WORKING OF THE YEAR.

### (*a*).—Communications and Buildings.

#### (*a*).—*Roads.*

62. The forests of the Circle are fairly well opened out by roads, and carts go mostly everywhere in the Deccan during the fair season. The hilly country of the Akráni is about the only large forest area which is not accessible to vehicular transport for the conveyance of timber, &c., and the Sátpuda hill forests are not traversable in all directions by carts. But there is no great need for the Forest Department to undertake the construction of roads, which are costly to maintain. Forest officers have quite enough to do in looking after the general organization, and the conservancy and works of their forests, and the administration of their divisions. Where proposed roads are destined to be trade routes which serve for the carriage of timber, while being required mainly for provincial or local purposes, their construction is undertaken at the cost of the Provincial Budget or of the Local Funds by the Department of Public Works.

A road is under construction by the Executive Engineer of Khándesh between the Khándesh District and the leased Dángs which will serve for the conveyance of timber, &c., it crosses the Jákriabári in the Pimpalner Range. A sum of Rs. 20,057-6-10 has been expended upon it up to the end of the year of this report, of which Rs. 14,891-12-8 were spent during 1893-94. The length of ghát portion of the road is 2·06 miles, one mile of it was ready for consolidation by the end of March 1894, and another mile was expected to be completed by the end of the rainy season, and the line of road from the top of the Jákriabári to Wársá, a bazaár town where timber is sold, has been surveyed.

In the Násik Division the Executive Engineer has finally completed the Hasteh-Barhe road in the Peint Range which is now fit for vehicular traffic, and timber and bámboos come from the northern portion of the Peint Range into the Dindori and other markets above the Syhádris, in carts, along it by way of the

Nánashi Ghát. A survey of a proposed line of road from the 22nd mile of the Násik-Balsár road near the village of Ambegan to the Nánashi Ghát has been partially completed : this road also will serve for the carriage of timber, and the survey of a line for a road from Peint to the Nánashi Ghát *viâ* Jogmodi has been made roughly, but it requires revision.

In the Ahmednagar Division, progress has been made in two roads under construction by the Public Works Department, which will open out the rough forest country of Akola near the Syhádris, which is the hirda region of the Ahmednagar Division, to the following extent, during the year :—

1. Road from Jámgaon to Kotul, nearly completed, the estimate amounted to Rs. 28,594, the expenditure up to end of 1892-93 to Rs. 20,553, and the expenditure during the year to Rs. 7,327.

2. Road from Rundhá Khurd to Sámrad is nearly completed for a full length of 9 miles. The sanctioned estimate is Rs. 29,924, expenditure up to end of 1892-93 Rs. 20,409, and the expenditure of the year Rs. 8,254.

In the Poona Division, the Executive Engineer has partially surveyed a proposed line of road through the hirda region in the Ambegaon Range from the village of Dimbha on the Ambegaon-Manchar Road to Bhimáshankar on the edge of the Syhádris overlooking the Konkan. Hirdas are carried along this route to the Bombay market for export.

In the Sátára Division, a line of road from Karád to Salwa up the Vang valley, where there is a large area under teak, was surveyed at a cost of Rs. 225-1-4 by the Executive Engineer of Sátára.

The Divisional Forest Officer of West Khándesh spent a little money in improving the Kalambári, a forest export road in the Pimpalner Range, to facilitate the removal of teak timber which had been felled departmentally on the lands of Bhil settlements in the village Umarpátá.

A road for cattle to go to water was lined out and made through the closed forest of Tankli in the Nándgaon Range, at a cost of Rs. 43, by the Divisional Forest Officer, Násik.

(*b*).—*Buildings.*

63. The following were undertaken at the cost of the Provincial Service Budget by the Public Works Department at the instance of, and under the sanctions given by, the Conservator of Forests from the discretionary grant of Rs. 1,250 which had been placed at his disposal in Government Resolution No. 269A—1028, dated 5th July 1893, in the Public Works Department :—

| No. | Executive Officer. | Nature and Locality of work. | Amount sanctioned. Rs. | a. | p. |
|---|---|---|---|---|---|
| 1 | Executive Engineer, Khándesh. | (1). Additions and alterations to the Range Forest Office at Chálisgaon ... | 437 | 2 | 3 |
| | | (2). Providing a window to the room in the Range Forest Office at Chopda ... | 57 | 6 | 11 |
| | | (3). Providing a weather board in front of the Range Forest Office at Sháháda . | 15 | 15 | 10 |
| | | (4). Converting a building at Dhadgaon in the Akráni into a Range Forest Office ... ... ... ... ... | 9 | 0 | 0 |
| 2 | Do. Ahmednagar. | (1). Weather board to the Range Forest Office, Kopargaon ... ... ... | 10 | 0 | 0 |
| | | (2). Alteration of the Range Forest Office, Akola ... ... ... ... | 5 | 0 | 0 |
| 3 | Do. Sátára ... | (1). A window in the Range Forest Office at Sátára ... ... ... ... | 59 | 15 | 5 |
| | | (2). A room for the Range Forest Office at Waduz, Táluka Khatáv ... ... | 495 | 14 | 4 |
| | | Total ... | 1,090 | 6 | 9 |

The undermentioned additional works were constructed by the Public Works Department for the Forest Department during the year, at the cost of the Provincial Service Budget or of funds transferred from the Forest Budget :—

A new Forest Depôt-house at the head of the Kondaibári, a steep ghát on the made road leading from Dhulia to the Surat District, was partially built, and a sum of Rs. 684-3-10 was expended upon it.

A record-room for the Divisional Forest Officer of Poona in the Haveli Mámlatdár's Kacheri compound in the City of Poona, was completed at a cost of Rs. 1,110 against an estimated sum of Rs. 1,287 sanctioned in Government Resolution No. 1248 of the 5th August 1892, in the Public Works Department.

The Executive Engineer, Sátára, built—

(1). A well in the forest rest-house at Lingmala at a cost of Rs. 394-11-5 against a sanction of Rs. 407.

(2). A Hirda Depôt-house was under construction at Helwak in the Pátan Range, and Rs. 506-5-9 were expended upon it out of a sanction of Rs. 2,109, to give permanent accommodation to 1 Round and 2 Beat guards, and for the collection and storing of hirdas; the Depôt Officer will live here in the hirda season.

(3.) A Hirda Forest Depôt-house was nearly completed at Mahábaleshwar, Rs. 1,787-10-5 having been expended on it against a sanction of Rs. 2,109 : this house will serve for the permanent accommodation of the Round and the 2 Beat guards of the Malcolmpeth Range; and during the hirda season the Depôt Officer will reside in it.

A good new building at Malcolmpeth, the station of Mahábaleshvar, was purchased for a Range Forest Office and to give permanent accommodation to the Range Forest Officer, 2 writer guards and one attendant guard, at a cost of Rs. 3,569, under sanction of Government Resolution No. $\frac{255\ A}{1016}$, dated 23rd June 1894.

The construction of a forest rest-house at Lalling in the centre of a large area of Anjan (Hardwickia), forests which are being exploited under a working plans for the firewood supply of the town of Dhulia, the head-quarters of the Khándesh District, where there are several steam cotton factories which consume much firewood, was completed during the year by the Divisional Forest Officer, West Khándesh, at a total expenditure of Rs. 1,965, of which sum Rs. 1,254 were disbursed during the year.

64. The following table exhibits the expenditure incurred by the Divisional Forest Officers in building houses for the accommodation of forest guards, temporary depôt-houses, sheds or shantees for nákás, &c. :—

| Divisions. | Amount. | | |
|---|---|---|---|
| | Rs. | a. | p. |
| East Khándesh ... ... ... | 370 | 0 | 0 |
| West do. ... ... ... | 1,455 | 0 | 0 |
| Násik ... ... ... | 110 | 0 | 0 |
| Ahmednagar ... ... ... | 29 | 0 | 0 |
| Poona ... ... ... | 80 | 0 | 0 |
| Sátára ... ... ... | 66 | 0 | 0 |
| Sholápur ... ... ... | ..... | | |
| Total ... | 2,110 | 0 | 0 |

(*b*).—Protection of Forests from Injury.

(*1*).—*General Protection and Breaches of Forest Law.*

65. The year opened with 122 cases awaiting trial in respect of which complaints had been laid by Forest officers before Magistrates : and during the year 1,536 new cases were presented before the criminal courts; making 1,658 cases

on the registers. Out of these, 1,437 cases were disposed of during the year, with the result that convictions were obtained in 1,142 cases, and 295 were discharged; 2,629 persons were convicted and punished, and 888 persons were acquitted. At the close of the year 221 cases were pending.

66. The year of this report treats of twelve months, while the Forest Administration Report of 1892-93 embraces a period of fifteen months, *viz.*, 1st April 1892 to 30th June 1893; and, therefore, the comparison between the number and the results of the number of cases tried in the two years respectively, presented in the statement below this requires to be corrected before it can be accepted as an accurate table for deduction:—

| No. | Division. | 1892-93. | | 1893-94. | | Percentage of Failures. | |
|---|---|---|---|---|---|---|---|
| | | Prosecutions. | Acquittals. | Prosecutions. | Acquittals. | 1892-93. | 1893-94. |
| 1 | East Khándesh ... | 71 | 15 | 62 | 8 | 21·1 | 12·9 |
| 2 | West do. ... | 80 | 13 | 78 | 3 | 16·2 | 3·8 |
| 3 | Násik ... ... | 136 | 42 | 87 | 28 | 30·0 | 32·2 |
| 4 | Ahmednagar ... ... | 188 | 37 | 219 | 43 | 19·6 | 19·6 |
| 5 | Poona ... ... | 618 | 201 | 492 | 131 | 32·5 | 26·6 |
| 6 | Sátára ... ... | 206 | 60 | 441 | 56 | 29·1 | 12·6 |
| 7 | Sholápur ... ... | 103 | 25 | 58 | 26 | 24·2 | 44·8 |
| | Total ... | 1,402 | 393 | 1,437 | 295 | 28·0 | 20·5 |

The classification of the cases prosecuted during 1893-94 in the several divisions is as under:—

| No. | Division. | Offences relating to the misappropriation of | | | | Total. |
|---|---|---|---|---|---|---|
| | | (*a*) Timber, | (*b*) Firewood. | (*c*) Other minor produce, | (*d*) Other offences, | |
| 1 | East Khándesh ... ... | 3 | 19 | ... | 40 | 62 |
| 2 | West do. ... ... | 42 | 3 | 1 | 32 | 78 |
| 3 | Násik ... ... ... | 11 | 18 | 5 | 53 | 87 |
| 4 | Ahmednagar ... ... | 4 | 16 | 47 | 152 | 219 |
| 5 | Poona ... ... ... | 35 | 49 | 7 | 401 | 492 |
| 6 | Sátára ... ... ... | 39 | 56 | 32 | 314 | 441 |
| 7 | Sholápur ... ... ... | 1 | 3 | 37 | 17 | 58 |
| | Total ... | 135 | 164 | 129 | 1,009 | 1,457 |

There was no serious crime in the East Khándesh Division, but near the close of the year some illicit fellings were detected in the Pátna Reserve of the Chálisgaon Range; teak trees and large branch-wood of junglewood trees having been cut and stolen, the offenders were traced and detected, and are to be prosecuted. In the Kaliadoho reserved forest of the Yával and in the Jánori and Chinchali Forests of the Sávda Ranges, thefts of trees occurred, and damage was done to anjan, Hardwickia, reproduction by Bhil privilege-holders beheading saplings for the purpose of using their bark to tie bundles of grass. The number of cases sent for trial is less than of the preceding year of fifteen months, and was about the same as during the corresponding months of 1892-93; on the other hand, the number of acquittals shows a reduced proportion; and the Divisional Forest Officer reports that substantial punishments were given generally in the convicted cases. Two of the 8 acquitted cases were not tried at all, but were removed from the register by the Magistrate, because the offenders had absconded to the Nizám's Territory and could not be found.

West Khándesh with its wide spreading area of 1,579 square miles of forests had only 78 cases for trial, of which but 3 were acquitted. There were a few more cases than in the corresponding twelve months of the preceding forest year, and this increase is owing to the fact that cases which would ordinarily have been compounded under Section 67 of the Forest Act, and were too serious to let off with a mere warning, were taken before the Magistrates. The small percentage of acquittals points to the care and judgment with which cases were sent up for trial. In the 75 cases, in which convictions were obtained, 202 offenders were concerned, while 6 persons were affected in the 3 cases of acquittals. The protection of the West Khándesh Forests is said to have been good. The Collector has remarked that the result of forest prosecutions in the Khándesh District is a successful record.

In the Násik Division, there is a large decrease in the figures of the present year compared with those of last year and of about 30 per cent. when compared with the corresponding months of that year. 17 cases were pending when the year opened. 95 complaints were laid during the year, but 87 cases only were tried and concluded, in which 266 people were concerned, 28 of these cases, which is a very large proportion, affecting 95 people, were acquitted. The chief cause of failure has been "want of sufficient proof," which is always difficult to obtain in a forest case among villagers; 25 cases were pending at the close of the year.

In the Ahmednagar Division, 9 cases were awaiting trial when the year opened, and 243 new cases formed the subjects of complaints before the Magistrates during the year; but only 219 cases were disposed of, and 33 were still untried when the year closed: convictions were given in 176 cases, concerning 537 offenders, who were mostly fined, in sums which aggregated Rs. 1,812-8-0; imprisonments amounted to 1 month and 10 days in all; in the Párner, Karjat and Sangamner Ranges only was imprisonment awarded. No explanation regarding the large number of acquittals has been given by the Divisional Forest Officer, but the increase in the number of cases prosecuted is owing to cattle trespass cases having been sent up to the Magistrates for trial, instead of having been settled out of Court under Section 67 of the Forest Act, by the Divisional Forest Officer, as used to be done largely formerly. The 43 cases discharged concerned 149 persons.

Four hundred and ninety-two cases were sent up for trial in the Poona Division, of which 131 were acquitted. These figures show an improvement on those of the year before. The number of cases is less than during the corresponding months of 1892-93, and the percentage of failures has fallen from 32·5 to 26·6, but this proportion of acquittals is very high, seeing that in every case the Divisional Forest Officer considers the evidence carefully and gives in his own handwriting the order to prosecute; probably it is owing to prosecution witnesses forgetting facts, and diverging from their original statements; the decrease in the number of prosecutions is owing to the fact that the treatment of forest offences of cattle trespass under Section 67 of the Forest Act was resumed by the Divisional Forest Officer in the month of February 1894 on receipt of instructions from the Collector, regarding the correct interpretation of the orders of Government in paragraph 6 of their Resolution No. 8626, dated 3rd November 1892. The more serious offences occurred in the Ambegaon and Junnar Ranges, and consisted of Dálhi cultivation inside the forests, tampering with boundary marks to conceal and assist encroachments made in forests, and illicit cutting of teak trees in the forests of Ghoda. In all these cases, where conviction was obtained, fitting punishment was given, rigorous imprisonment being awarded in addition to fines.

The number of cases prosecuted in the Sátára Division is more than double that of 1892-93, and this is explained by the Divisional Forest Officer as owing to his having sent all serious cases to be tried by Magistrates, instead of disposing some of them himself under section 67 of the Forest Act. Four hundred and forty-one cases were presented before the Magistrates for trial; and convictions were obtained in 385 of these; the acquittals numbered only 56, showing a diminished proportion compared with the results of the previous year. Adequate punishments were given, as a general rule, for wilful and deliberate offences.

The general protection of the Sholápur forests, seeing their scattered distribution, may be considered to be good, although petty thefts have occurred, and numbers of cattle were grazed illicitly despite impoundings—7 cases in which complaints had been laid were awaiting trial when the year opened; and 53 new cases were presented for trial during the year; making 60 cases in all: only 1 of these concerned timber, and 3 concerned firewood: 58 cases were disposed of before the 30th June 1894. In 32 cases involving 76 offenders convictions were obtained, and in the 26 cases discharged 58 persons were acquitted. There is a decrease of 45 in the number of cases prosecuted during 1892-93, but a period of 15 months was embraced in that year; however the number of prosecutions is less than during the corresponding 12 months preceding. The Collector has remarked "of the criminal cases only one was in my judgment really serious as showing a deliberate joint intention on the part of many persons to disregard forest rules."

67. The rewards paid to the officers and informers, through whose instrumentality conviction was obtained in cases tried by Magistrates according to the rules published in Notification No. 5587, dated 18th October 1879, under Section 75 of the Indian Forest Act which direct the payment of one-half of the proceeds of fines and confiscations under the Act, or a larger amount than one-half if the Magistrate who tries the case thinks fit, are shown in the following table:—

| No. | Division. | Amount. | Remarks. |
|---|---|---|---|
| | | Rs. | |
| 1 | East Khándesh ... ... | 105 | |
| 2 | West do. ... ... | 429 | |
| 3 | Násik ... ... ... | 147 | |
| 4 | Ahmednagar ... ... | 561 | |
| 5 | Poona ... ... ... | 358 | |
| 6 | Sátára ... ... ... | 617 | |
| 7 | Sholápur ... ... ... | 285 | |
| | Total ... | 2,502 | |

68. The number of cases compounded during the year, together with the sums of money accepted and received by Divisional Forest Officers by payment of compensation under Section 67 of the Forest Act, compared with the figures of 1892-93, shows as under:—

| Divisions. | 1892-93. 1st April 1892 to 30th June 1893. | | 1893-94. 1st July 1893 to 30th June 1894. | |
|---|---|---|---|---|
| | Cases. | Compensation. | Cases. | Compensation. |
| East Khándesh ... ... | 666 | 2,300 | 85 | 90 |
| West do. ... ... ... | 575 | 2,493 | 4 | 22 |
| Násik ... ... ... | 1,063 | 6,275 | 94 | 333 |
| Ahmednagar ... ... ... | 2,760 | 4,816 | 369 | 607 |
| Poona ... ... ... | 2,277 | 8,044 | 195 | 620 |
| Sátára ... ... ... | 741 | 1,254 | 83 | 61 |
| Sholápur ... ... ... | 1,565 | 1,837 | 96 | 57 |
| Total ... | 9,647 | 27,019 | 926 | 1,790 |

69. The classification of the cases compounded during the year gives the following distribution :—

| No. | Division. | Offences relating to | | | | Total. |
|---|---|---|---|---|---|---|
| | | (a) Timber. | (b) Firewood. | (c) Other Minor Produce. | (d) Other Offences. | |
| 1 | East Khándesh ... | 3 | 77 | 3 | 2 | 85 |
| 2 | West Khándesh ... | ... | 1 | 1 | 2 | 4 |
| 3 | Násik ... ... | 18 | 61 | 4 | 11 | 94 |
| 4 | Ahmednagar... ... | 12 | 162 | 7 | 188 | 369 |
| 5 | Poona ... ... | 22 | 20 | 12 | 141 | 195 |
| 6 | Sátára ... ... | 5 | 26 | 20 | 32 | 83 |
| 7 | Sholápur ... ... | 7 | 18 | 36 | 35 | 96 |
| | Total ... | 67 | 365 | 83 | 411 | 926 |

There is a very large falling off of cases treated by Forest officers under Section 67 of the Indian Forest Act, 1878.

The decrease in the East Khándesh Division is attributed to no cases of cattle trespass having been treated under Section 67 of the Forest Act under order of Government Resolution No. 8626, dated 3rd November 1892; and to a falling off in the number of committed offences of breaches of the pass rules under Section 41.

The Divisional Forest Officer of West Khándesh explains as the result of a conjectural, and, as it now appears, a mistaken construction of Government orders on the subject, only 4 cases were compounded under Section 67 during the year as against 575 in 1892-93. In these 4 cases 19 persons were concerned; and compensation to the amount of Rs. 22 was accepted.

The large decrease in the Násik Division is owing to cases of cattle trespass having been sent up to Magistrates for trial instead of being compounded; 47 cases were thus prosecuted; also to many cases having been let off with a warning instead of being settled out of Court under Section 67 of the Forest Act as used to be done formerly.

In the Ahmednagar Division the power given to the Divisional Forest Officer to compound offences under Section 67 was exercised very sparingly. "The practice of compounding cases of cattle trespass was not followed during the year under the ruling contained in the 6th paragraph of Government Resolution in the Revenue Department, No. 8626, dated 3rd November 1892, and compoundings have occurred only in offences other than of cattle trespass which occurred during the year. Of the total 369 cases compounded under Section 67, 196 were brought over from the previous year and 173 occurred during the year under report, and all these latter cases were of offences other than those of cattle trespass and chiefly of the theft of wood."

The Divisional Forest Officer, Poona, explains the large decrease in the number of cases compounded during the year under report is due to the following causes :—

(*a*) The powers of the Divisional Forest Officer under Section 67 of the Forest Act not having been resumed in connection of cattle trespass till very late in the year as explained.

(*b*) To no cases having been compounded except those in which the Divisional Forest Officer was satisfied a criminal prosecution would hold good in the event of the offender refusing to accept the terms of compensation offered; for instance, cases of untended stray cattle tended by children were not to be dealt with under Section 67 of the Forest Act, unless some overt act could be proved against the owners implicating them in the offence.

(*c*) To a large number of cases, mostly of so-called trivial cases of unauthorised cuttings and removal of forest produce being warned.

The Sátára Divisional Forest Officer reports that the number of compounded cases has naturally fallen owing to the orders of Government to Divisional Forest Officer not to compound trivial offences, or grazing offences, or fire offences.

No case was compounded in the Sholápur Division after December 1893 under what appears to have been a mistaken view of the orders of Government on the subject.

70. The classification of the sums of money accepted and received by Divisional Forest Officers under Section 67 in amounts of rupee one and upwards to the maximum permitted by the law is, as directed in Government Resolution No. 1899 of the 13th March 1891, in the Revenue Department, given in the following statement:—

| No. | Division. | Number of cases in which compensation was fixed at Rupees, | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Re. 1 and under. | Rs. 2 " | 3 " | 4 " | 5 " | 6 " | 7 " | 8 " | 9 " | 10 " | 11 " | 12 " | 13 " | 14 " | 15 " | 16 " | 17 " | 18 " | 19 " | 20 " | 21 " | 22 " | 23 " | 24 " | 25 " |
| 1 | East Khándesh... | 59 | 15 | 6 | 3 | ... | ... | 1 | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 2 | West Khándesh... | 1 | ... | ... | ... | ... | 2 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 3 | Násik ... ... | 49 | 19 | 1 | 4 | 10 | 2 | ... | 1 | 1 | 1 | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 4 | Ahmednagar ... | 251 | 40 | 32 | 18 | 9 | ... | 3 | 2 | 3 | 2 | ... | 2 | 1 | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... |
| 5 | Poona ... ... | 64 | 43 | 20 | 12 | 32 | 7 | 2 | 4 | 2 | 6 | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 6 | Sátára ... ... | 67 | 10 | 2 | 1 | 1 | 1 | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 7 | Sholápur... ... | 84 | 5 | 5 | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 575 | 132 | 66 | 39 | 52 | 17 | 6 | 7 | 7 | 10 | 1 | 3 | 2 | 1 | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... |

| No. | Division. | Number of cases in which compensation was fixed at Rupees, | | | | | | | | | | | | | | | | | | | | | | | | | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Rs. 26 and under. | 27 " | 28 " | 29 " | 30 " | 31 " | 32 " | 33 " | 34 " | 35 " | 36 " | 37 " | 38 " | 39 " | 40 " | 41 " | 42 " | 43 " | 44 " | 45 " | 46 " | 47 " | 48 " | 49 " | 50 " | |
| 1 | East Khándesh... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 85 |
| 2 | West Khandesh... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4 |
| 3 | Násik ... .. | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 94 |
| 4 | Ahmednagar ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 369 |
| 5 | Poona ... ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 195 |
| 6 | Sátára ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 83 |
| 7 | Sholápur... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 96 |
| | Total ... | ... | 2 | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 926 |

71. All the money which was accepted by Forest officers under Section 67 of the Forest Act in the several divisions by way of compensation for forest offences, and was received during the year, was credited, without any deduction having been made in respect of any rewards which may have been given to persons who may have contributed to the detection of the offenders in these cases, under Receipts V c. in accordance with the system of classification of forest accounts prescribed in the list published with Government Resolution, in the Revenue Department, No. 2420, dated 8th April 1891.

72. The following statement shows the amounts paid in rewards by Divisional Forest Officers in exercise of the power given to them by Government Resolution No. 8568, dated 16th December 1887, in the Revenue Department, in connection with cases compounded under Section 67 of the Forest Act, 1878, to the persons who had contributed to the detection of the cases:—

| Divisions. | Number of cases compounded. | Number of cases in which rewards were paid. | Amounts of rewards. |
|---|---|---|---|
| | | | Rs. |
| East Khándesh ... ... ... | 85 | ... | ... |
| West do. ... ... ... | 4 | ... | ... |
| Násik ... ... ... | 94 | 2 | 2 |
| Ahmednagar ... ... ... | 369 | ... | ... |
| Poona ... ... ... | 195 | 131 | 182 |
| Sátára ... ... ... | 83 | 7 | 4 |
| Sholápur ... ... ... | 96 | ... | ... |
| Total ... | 926 | 140 | 188 |

73. As directed in paragraph 11 of Government Resolution No. 1899, dated 13th March 1891, a statement showing the number of cases sent up to the Divisional Forest Officer for consideration under Section 67 of the Forest Act and their subsequent disposal is given below :—

| Divisions. | Number of cases sent up to the Divisional Forest Officer. | Number of cases disposed of under Section 67. | Number of cases let off with a warning. | Number of appeals against the proceedings. | Manner in which appeals have been disposed of. | Remarks. |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| East Khándesh ... | 113 | 85 | 28 | ... | ... | |
| West do. ... | 241 | 4 | 237 | ... | ... | |
| Násik ... ... | 1,030 | 94 | 936 | ... | ... | |
| Ahmednagar ... | 3,144 | 369 | 2,775 | ... | ... | |
| Poona ... ... | 1,875 | 195 | 1,680 | ... | ... | |
| Sátára ... ... | 2,713 | 83 | 2,630 | ... | ... | |
| Sholápur ... | 1,418 | 96 | 1,322 | ... | ... | |
| Total ... | 10,534 | 926 | 9,608 | ... | ... | |

74. An account of the cases prosecuted and of cases compounded by Divisional Forest Officers under Section 67 of the Forest Act, during the year of the report, and in the preceding year is given in the subjoined statement, as directed in Government Resolution No. 3527, dated 2nd May 1884, in the Revenue Department :—

| No. | Division. | Taken into Court. | | Compounded. | | Total number of cases. | |
|---|---|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| 1 | East Khándesh ... | 71 | 62 | 666 | 85 | 737 | 147 |
| 2 | West do. ... | 80 | 78 | 575 | 4 | 655 | 82 |
| 3 | Násik ... ... | 136 | 87 | 1,063 | 94 | 1,199 | 181 |
| 4 | Ahmednagar ... ... | 188 | 219 | 2,760 | 369 | 2,948 | 588 |
| 5 | Poona ... ... | 618 | 492 | 2,277 | 195 | 2,895 | 687 |
| 6 | Sátára ... ... | 206 | 441 | 741 | 83 | 947 | 524 |
| 7 | Sholápur ... ... | 103 | 58 | 1,565 | 96 | 1,663 | 154 |
| | Total ... | 1,402 | 1,437 | 9,647 | 926 | 11,049 | 2,363 |

75. A great number of cases of forest offences which came up before Divisional Forest Officers for orders was let off with a warning in every division on account of their triviality, or because the offenders were young children, or because it was a first offence; and the following table, which is a complete register of forest offences of the year, shows the number of such offences,

together with the number of discovered offences in respect of which no offender was detected :—

| Division. | Disposal of offences. | | | | Total. |
|---|---|---|---|---|---|
| | Prosecuted. | Compounded. | Warned. | Offenders undetected. | |
| East Khandesh ... ... | 62 | 85 | 28 | 35 | 210 |
| West do. ... ... | 78 | 4 | 237 | 124 | 443 |
| Násik ... ... ... | 87 | 94 | 936 | 159 | 1,276 |
| Ahmednagar ... ... | 219 | 369 | 2,775 | 145 | 3,508 |
| Poona ... ... ... | 492 | 195 | 1,680 | 332 | 2,699 |
| Sátára ... ... ... | 441 | 83 | 2,630 | 426 | 3,580 |
| Sholápur ... ... | 58 | 96 | 1,322 | 9 | 1,485 |
| Total ... | 1,437 | 926 | 9,608 | 1,230 | 13,201 |

In the warned list of the Poona Division, 86 cases were time-barred under the six weeks rule introduced by the Collector and District Magistrate, of which mention is made in paragraph 67 of the Administration Report of 1892-93. These 86 cases consisted of :—

| | |
|---|---|
| Fire cases ... ... ... ... | 1 |
| Illicit fellings ... ... .. | 6 |
| Cattle trespassed ... ... ... | 77 |
| Other offences ... ... ... | 2 |

The cases let off with a warning in the different divisions are sorted under the following headings :—

| Divisions. | Classification of offences. | | | | Total. |
|---|---|---|---|---|---|
| | Fires. | Illicit cuttings. | Cattle trespass. | Other offences. | |
| East Khándesh ... ... | ... | 10 | ... | 18 | 28 |
| West do. ... ... | 2 | 68 | 58 | 109 | 237 |
| Násik ... ... ... | 23 | 163 | 688 | 62 | 936 |
| Ahmednagar ... ... | .. | 27 | 2,745 | 3 | 2,775 |
| Poona ... ... ... | 12 | 180 | 1,452 | 36 | 1,680 |
| Sátára ... ... | 29 | 144 | 2,374 | 83 | 2,630 |
| Sholápur ... ... | 1 | 272 | 394 | 655 | 1,322 |
| Total ... | 67 | 864 | 7,711 | 966 | 9,608 |

76. It cannot, possibly, be said that the returns given above show that the Forest Act is administered harshly by Forest officers, or that there is any extraordinary prevalence of forest crime. In a forest area of 6,158 square miles spread over 38,390 square miles of country, included in 7 divisions with 80 ranges, only 1,437 cases were prosecuted and 926 were compounded during the twelve months : these figures speak for themselves.

Upon the East Khándesh Divisional Report the Collector has remarked— "Mr. Madan has sent me regularly a return of cases compounded by him. He has worked the section with discretion I consider. The procedure proposed by the Legal Remembrancer is unworkable, in practice, in its entirety. Where Mr. Madan has departed from that procedure he has done so to save the suspected person trouble and delay." And the Collector has likewise remarked "as the procedure suggested by the Legal Remembrancer for the compounding of forest offences is not workable, Section 67 of the Forest Act has been but very little used during the year. In the Western Division, only 4 and in the Eastern Division, only 113 cases were compounded. Returns of the cases thus compounded are sent to me regularly ; and the section so far as it is used seems to be used with discretion."

The Collector of Ahmednagar has recorded that "Trivial cases are being considerately treated."

The Collector of Sátára remarks: "Another matter requiring notice is the large increase in the number of forest prosecutions. This is a subject to which the undersigned has given a good deal of attention. He has tried several forest cases himself and he has examined the records of a large number on the files of the Subordinate Magistrates, and he is glad to be able to say that he has come across hardly any cases that ought not to have been taken into Court. Inadequate punishments continue to be inflicted by some of the Native Magistrates in forest cases, though, as Mr. Fagan says, there has been an improvement in that respect. It was noticed in many cases that there was undue delay on the part of the officers of the Forest Department in instituting prosecutions, complaints having frequently been laid six months or more after the offences were committed. It is believed, however, that something is being done by the Divisional Forest Officer to remedy this state of things."

The Collector of Sholápur has recorded: "Of the criminal cases only one was in my judgment really serious as showing a deliberate joint intention on the part of many persons to disregard forest rules. The policy of not using Section 67 at all was Mr. Oliver's. It has been condemned by Government in a recent Government Resolution. I consider myself that the section should be very sparingly used. There has, as the Conservator is aware, been much correspondence on the subject between his office and mine, and on all general principles I believe we are now at one."

(2). *Protection from fire.*..

77. The following statement gives the results of "Fire Conservancy" in the several divisions during the year as compared with those of the preceding year, which, it should be remembered, included 15 months with two hot seasons, or periods of dry months, when forests are more liable to be fired than in the cold season:—

| No. | Divisions. | Forest area placed under protection against fire. | | Acreage burned. | | Percentage burned. | | Expenditure incurred in Rupees. | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| 1 | East Khándesh ... | 516,315 | 519,285 | 48,788 | 15,671 | 9·4 | 3·0 | 281 | 300 |
| 2 | West do. ... | 1,076,136 | 1,103,502 | 288,000 | 89,735 | 26·7 | 8·1 | 904 | 1,036 |
| 3 | Násik ... ... | 818,887 | 818,701 | 7,870 | 5,141 | 0·9 | 0·6 | 166 | 97 |
| 4 | Ahmednagar ... | 541,814 | 542,030 | 2,898 | 1,104 | 0·5 | 0·2 | ... | 3 |
| 5 | Poona ... ... | 476,169 | 454,917 | 6,300 | 5,293 | 1·3 | 1·1 | 8 | 611 |
| 6 | Sátára ... ... | 444,844 | 425,790 | 2,057 | 3,927 | 0·4 | 0·9 | 6 | 11 |
| 7 | Sholápur ... ... | 178,035 | 178,041 | 860 | 457 | 0·4 | 0·2 | ... | 48 |
| | Total ... | 4,052,200 | 4,042,266 | 356,773 | 121,328 | 8·8 | 3·0 | 1,365 | 2,106 |

78. There has been a continued improvement in fire conservancy. The year was not a favourable one under climatic conditions for protection against fires, as there was no succession of rain-storms as in the year before at intervals, between November and June. No special measures, beyond burning of fire lines on the sides of cart roads, foot-paths, and rights of way and the outer boundary lines of reserved forests by forest guards, assisted here and there by hired labour, were adopted in the Deccan districts of Násik, Ahmednagar, Poona, Sátára and Sholápur. In the two Khándesh divisions more elaborate fire tracing was undertaken in the widespreading forests of the Sátpudas and Akráni. The forest subordinates have been vigilant in descrying fires, and active and zealous in taking action to stop them and put them out; and forest villagers have co-operated readily and willingly in attacking fires, and also in clearing protective lines, save in one solitary instance which occurred in East Khándesh. As a rule, the forest villager understands the benefits of fire conservancy, and voluntarily lends a hand at fighting a fire.

79. In the East Khándesh Division there are 13 ranges; and in two of them, Sávda and Yával, whose forests cover the Sátpuda hills, where fires have

hitherto burnt far and wide year after year, there were no fires this year: the Páchora Range was likewise free of fire. Altogether 40 different fires occurred in the division, and the largest number was in the Edlabad and Chálisgaon Ranges, which had 8 each, burning 5,125 and 852 acres, respectively: in the Jalgaon Range there were 6 fires, which traversed 431 acres; in Jamner and Chopda, 4 fires each, burning 1,038 and 6,201 acres; in Amalner, 3 fires, which only burnt 395 acres; in the Bhadgaon, Bhusával and Ráver Ranges, 2 fires each, spreading over 210, 1,000 and 244 acres, respectively; and only one fire happened in the Erandol Range, where 175 acres suffered. The 40 fires burnt 15,671 acres of forests, or 3·03 per cent. of the forest area of the division. The Chopda Range had the largest spread of burnt forests. An exceptionally large fire raged for two nights and days in the Sátpuda forests of this range, and it was extinguished only by great exertion, and willing assistance rendered by a large body of villagers from all the villages bordering the forest, who worked day and night under the direction of forest guards. The Divisional Forest Officer was present directing the attack on the fire. The Mámlatdár and the Chief Constable of Chopda gave very appreciable assistance by going from village to village, and sending village officers and villagers up into the hills to fight the fire. A strong gale of wind was blowing, which the fire was greatly the cause of, and the fire swept along with a fierce head of flame at a great rate, through a dense forest of bámboos, being fed by the deep layer of dead leaves, lying on the ground, which were as inflammable as tinder. The surface springs of water in the forest had dried up, and drinking water had to be brought in mussacks from the villages at the foot of the hills, 6 and 7 miles away, to quench thirst, which the heat of the flame, and the hard work of beating it down with branches, provoked. The Edlabad Range forests on the Hatti hills were fired several times through fires coming across the frontier from Nimar. Of the 40 fires of the year the persons who set fire to the forests were traced in 5 cases, two of these were settled by payment of compensation, and 3 were sent up for trial. A man who had deliberately fired the Kandan reserved forest in the Jalgaon Range, in order to ruin the purchaser of the grass against whom he had a grudge, was sentenced to rigorous imprisonment for 2 months; and adequate punishments were given in the other cases.

Nineteen persons who reside near the forests and are permitted to cut and remove timber and to pasture their cattle in the forests, and who refused to render assistance at the call of their village officers in extinguishing a fire in the Sávda Sátpuda forests, last year, were prosecuted under Section 78 (*a*) of the Forest Act, and were fined in sums amounting to Rs. 51 by the trying Magistrate.

Fire lines were burnt along the external boundaries of the forests, and internal cross lines were likewise cleared; and the expenditure incurred on fires amounted to Rs. 300.

80. The forests of the West Khándesh Division are the widest of all the forests in the Circle, some are above the ghats, some are below, and others are the Sátpuda and Akráni hills—the great divide between the Narbada river on the north and the Tápti river on the south. There are 10 large ranges in this division, and one only, Sindkhed, reported no forest fire. 108 fires are said to have occurred during the year, and to have travelled over 89,735 acres of forests. The Divisional Forest Officer is of opinion that the spread of the fires has been very much under-estimated, that double, if not three times the forest area entered in the returns, was burnt: and seeing that the fires occurred chiefly at the time when the mhowra tree (Bassia) was flowering, it would appear that the habit of clearing by fire the ground under mhowra trees in order to facilitate the collection of the fallen blossoms is the cause of a greater number of the fires. In 19 cases, the persons who set fire to the forests were discovered. 16 prosecutions were instituted and 16 convictions obtained. Fire lines were burnt externally and internally and forest subordinates, and forest villagers were vigilant in descrying fires, and were active and ready in proceeding to check and extinguish them. Sums aggregating Rs. 1,036 were expended on fire conservancy in this division.

81. In the Násik Division 112 forest fires were reported against 182 of the preceding 15 months, and they burnt 5,141 acres or 0·6 per cent. of the total

forest area. The fire discipline was good. Rs. 97 were spent in rewards and wages for protecting against fire, and putting out fires.

82. There are 11 ranges in the Ahmednagar Division, and fires were more prevalent in the Akola Range than anywhere else. 25 forest fires appeared in this range, and they are said to have burnt only 333 acres. The Karjat Range was free from fire, and the year's record of the whole division in fire discipline is seemingly good, for although 60 separate fires occurred, they were apparently discovered, and met so sharply, that only 1,104 acres suffered; 2 fires in Párner burnt 4 acres; 1 fire in Ráhuri burnt $\frac{1}{10}$th of an acre; 1 fire in Nevása burnt 3 acres. No expenditure was incurred in burning fire traces.

83. The returns of the Poona Division show fire protection to have been on the whole good. There was no fire in the Indápur Range, and only 4 acres were burnt in Sirúr, 28 in Bhimthadi and 71 in Dhond. Altogether 5,293 acres of the forests of the division are returned as having been burnt by 161 separate and distinct fires. The Divisional Forest Officer is of opinion that the area traversed by fires has been under-reported. The largest number of fires, *viz.*, 33, occurred in the Mával Range, bordering the Syhádris, where 1,847 acres were burnt, but no less than 1,000 acres suffered in one village, Umbre Navlakh, the forests of which were fired on 4 different occasions, and there are strong grounds for suspecting that this was the work of incendiaries to spite the purchasers of grass. The chief cause of fires in ranges bordering the ghâts is the careless burning of ráb on fields bordering the forest boundaries. Out of 7 cases of setting fire to forests which were prosecuted, convictions resulted in 4. At Kuhinde Budruk in the Khed Range one Benichand Ráichand Guzar, of Wade, was convicted of setting the forest on fire and burning 25 acres, and was fined Rs. 15 by the Magistrate, and was made to pay Rs. 15 damages in addition to the fine. In the Mulshi Range, Laxman Janu was, on conviction, fined Rs. 10 for burning $1\frac{1}{2}$ acres. In the Mával Range, Tukáram bin Pándoji Shindé, who set fire to 90 acres in the Chandkhed, Bembadohol and Dhamni forests was fined Rs. 4 and Genu bin Malhári was fined Rs. 2 for firing 37 acres in the Naigaon and Chikhalsai forests. But the notable case of the year was that of Bálárám Bháorám Pardeshi, who was prosecuted by the Range Forest Officer of Khed, and convicted of setting fire to the Kuhinde forest, and was sentenced to 6 months' imprisonment with a fine of Rs. 100, but on appeal to the Sessions Court he was acquitted as reported in paragraph 75 of the Administration Report of 1892-93. Bálárám then brought a suit in the Civil Court against the Range Forest Officer for a vexatious and malicious prosecution; and Government in their Resolution No. 2916, dated 27th April 1894, sanctioned its defence being undertaken by the Government Pleader, with the result that the suit was dismissed by the Court.

84. There has been a small increase in the fires which occurred during the year of this report in the Sátára Division, over the fires of the dry season 1892-93, but still the proportion burnt, 0·9 of the whole forest region of the district, is inconsiderable. In certain parts of the ghát ranges of Jávli, Mahábleshvar, Pátan and Wái the forest fires are made purposely to force the growth of grass. 117 fires were reported during the year, and they burnt 3,927 acres. In 32 instances the person who set the forest on fire was discovered by the forest guards, 16 of the offenders being boys were let off with warning: in 16 cases prosecutions followed, of which 10 were convicted, 1 was acquitted and 5 were undisposed of by the end of the year.

85. There are 7 ranges in the Sholápur Division, in three of which, *viz.*, Sholápur, Pandharpur and Málsiras, no forest fire occurred: in the Sángola Range one fire burnt $1\frac{1}{4}$ acres: in the Mádha Range there were 2 fires burning 4 acres: in the Bársi Range 3 fires appeared, one came from the Nizám's territory into the Koregaon forest and burnt 279 acres. Another in the Yedshi forest is said by a committee of village elders to have been caused by friction, two trees rubbing together! the three fires burnt 382 acres; and in the Karmála Range 1 fire was caused by a woman carrying fire, 70 acres were burnt. She was not prosecuted. Altogether 7 fires occurred and 457 acres of forest suffered therefrom. The record is a good one, and speaks well of the vigilance of forest guards, and of the assistance given by villagers.

86. The entire area in charge of the Forest Department, whether it be legally constituted reserved forest or protected forest, or provisionally notified forest lands, is brought under fire protection directly it is placed in the care of the forest subordinates.

87. The Collector of Khándesh in forwarding the administration report of the East Khándesh Division remarks :—

"The area of forest burnt is returned at a much lower figure than last year. There is probably a good deal of guess work in these figures. But after making allowances for that it would really appear that considerably less forest has been burnt this year than last. The question then arises how far this is mere accident, and how far it is due to fire tracing. And when I see that only Rs. 299 were spent on fire tracing I don't think it safe to attribute it mainly to fire tracing. Fire tracing and prosecutions had no doubt something to do with it. But it does not appear safe to count on the improvement as a permanent one."

and in forwarding that of the West Khándesh Division :—

"What Mr. Keys says about forest fires corroborates what occurred to me in reading Mr. Mádan's report, viz., that reliance cannot be placed on the figures of area burnt over, and that it must not yet be assumed that such fire tracing as is done has done much good."

*(3). Regulation of Grazing and Protection from Cattle.*

88. Grazing is regulated under the rules published by Government with their Resolution No. 3595, dated 23rd May 1890, in the Revenue Department; and for this purpose the forest areas of every division are divided into two portions, the open and the closed; in the former grazing is allowed, but not in the latter. Some valuable kurans, or fodder grass reserves, are opened for a defined grazing season after the grass has been cut and exploited by hand from them, the right of grazing being sold by auction.

89. Agricultural and some milch cattle of forest villages are allowed to graze free of charge; but for other cattle fees, as a rule, are paid and grazing permits are taken out. In some divisions there is no close season againt grazing in the forests situated within the region of heavy rainfall, viz., the moist forests bordering the Syhádri mountains; and the forests of Peint in the Násik District below the ghâts are open all the year through, and all village cattle there are given free grazing. From the 15th August of one year to the 31st March of the next is generally observed as the grazing season in the Deccan forests beyond the line of heavy rainfall. In Khándesh, the close season against grazing extends from the 1st February to the 31st May. Sheep and goats are not allowed to graze in all open forests, but only in such forests as are specially open to these animals; and goats are in no case allowed in greater proportion than 1 goat to every 50 sheep. The harm that goats do effect upon the grazing of the areas they may be admitted to in this country is serious enough to warrant their absolute exclusion.

90. The following statement shows the distribution of the areas between closed and open to grazing in the several divisions of the Central Circle :—

| Divisions. | Open. | Closed. | Total. | Remarks. |
|---|---|---|---|---|
| | Sq. Miles. | Sq. Miles. | Sq. Miles. | |
| East Khándesh ... ... | 748 | 60 | 808 | |
| West Khándesh ... ... | 1,214 | 365 | 1,579 | |
| Násik ... ... ... | 811 | 468 | 1,279 | |
| Ahmednagar ... ... | 553 | 293 | 846 | |
| Poona ... ... ... | 344 | 364 | 708 | |
| Sátára ... ... ... | 485 | 174 | 659 | |
| Sholápur ... ... ... | 90 | 188 | 278 | |
| Total ... | 4,245 | 1,912 | 6,157 | |

91. To the villages inhabited by Kolis bordering the Syhádris in the region of heavy rainfall in the Khed, Ambegaon and Junnar Ranges of the Poona Division, as a special tribal concession, the grazing rules have not been extended,

and the right of grazing in the forests is sold nominally by auction yearly, but in reality there is no competition at all: the village officers are the habitual purchasers in every village, for no one bids against their offers which represent the price the village community is willing to pay; and since this tribal concession was made, the revenue derived from these sales has been a diminishing quantity, and it has been found that the villagers derive profitable trade from their privileges, for they let out grazing in the forests to professional graziers, and to people, other than Kolis, from the Konkan, and adjoining villages in the Deccan, charging them fees. The intention of the tribal concession was to provide grazing for the cattle belonging to the Koli villagers only on payment of such sum as they were willing to give; a quasi-commutation system; and thereby to relieve them of the restrictions of the grazing permit system, and of interference on the part of forest guards with their cattle so long as they kept to their open forests, and did not trespass into the closed forest. But as stated above, this liberal concession has been abused by the Kolis, who are making the moderate price to be paid by them a vanishing figure, and concurrently their profits, by letting out the grazing to foreign cattle, to be of annual increment, to the detriment of the forests which provide the grazing.

92. The duty of issuing permits for village cattle to graze on payment of fees is assigned to village officers, who are paid a percentage at the rate of Rs. 7-13-0, of which Rs. 4-11-0 goes to the Kulkarni and Rs. 3-2-0 to the Pátil on the grazing revenue they collect. This work is said to have been performed unsatisfactorily; the village officers having neglected in many cases to issue permits, and not infrequently to have connived at wholesale illicit grazing. In the Sátára District, the Collector has accordingly empowered the Forest officer to issue grazing permits for village cattle where the village officers fail to do this work at proper time.

93. The following statement shows the number of cattle of different kinds impounded in the several divisions during 1893-94, under Section 69 of the Indian Forest Act, for being trespassed in closed forests as well as in open forests:—

| Division. | Kind of forest area. | Cows and bullocks. | Buffaloes. | Camels. | Horses. | Asses. | Sheep. | Goats. | Total from | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Closed area. | Open area. |
| East Khándesh .. .. | Closed .. | 5,803 | 1,391 | .. | 8 | .. | 11 | 838 | 8,051 | .. |
| | Open .. | 1,599 | 181 | .. | .. | .. | 177 | 2,216 | .. | 4,173 |
| West Khándesh .. .. | Closed .. | 10,711 | 1,454 | .. | 75 | 6 | 3,437 | 1,534 | 17,217 | .. |
| | Open .. | 2,252 | 423 | .. | 5 | 15 | 1,306 | 2,236 | .. | 6,237 |
| Násik .. .. .. .. | Closed .. | 6,905 | 619 | .. | 58 | 9 | 4,122 | 5,006 | 16,719 | .. |
| | Open .. | 3,798 | 519 | .. | 35 | 1 | 3,815 | 4,720 | .. | 13,888 |
| Ahmednagar .. .. | Closed .. | 33,073 | 2,280 | .. | 219 | 52 | 10,221 | 15,246 | 61,091 | .. |
| | Open .. | 9,985 | 655 | .. | 43 | 135 | 12,063 | 11,026 | .. | 33,907 |
| Poona .. .. .. .. | Closed .. | 10,966 | 1,697 | .. | 163 | 37 | 13,667 | 6,791 | 33,321 | .. |
| | Open .. | 4,818 | 371 | 1 | 107 | 30 | 7,789 | 5,264 | .. | 18,380 |
| Sátára .. .. .. | Closed .. | 11,788 | 1,336 | .. | 90 | 24 | 10,380 | 3,613 | 27,231 | .. |
| | Open .. | 6,688 | 700 | .. | 40 | 17 | 14,308 | 3,987 | .. | 25,740 |
| Sholápur .. .. .. | Closed .. | 16,418 | 1,256 | .. | 91 | 47 | 3,985 | 3,157 | 29,954 | .. |
| | Open .. | 2,902 | 217 | 54 | 15 | .. | 1,070 | 602 | ... | 4,860 |
| Total .. | Closed .. | 95,664 | 10,033 | .. | 701 | 175 | 45,823 | 36,185 | 188,584 | .. |
| | Open .. | 32,042 | 3,066 | 55 | 245 | 198 | 40,528 | 30,051 | .. | 106,185 |

94. In closed forests where cattle had no business whatever, 188,584 were caught when trespassed, and were impounded; of these, 82,008 or 43·4 per cent. were sheep and goats. This number is less by about 4,000 than were impounded from closed forests during the corresponding 12 months of the preceding forest year. From open forests 106,185 cattle were driven to the pounds, 70,579 being sheep and goats, equal to 66·4 per cent. of the whole. 55 camels were caught trespassed, one in the Poona forests and 54 in the forests of Shoálpur. During the corresponding 12 months of the previous year about 7,700 more cattle were impounded from open forest than in the year of the report.

95. In the East Khándesh division there has been a marked decrease in the number of cattle impounded when compared with the corresponding period of the previous year. This decrease is attributed chiefly to a smaller number of

animals having been impounded from the open forests owing to trespassers having been given the option of paying the legitimate grazing fees, especially in the earlier part of the grazing season, before their cattle were put in the pound and to their having generally accepted these terms. In no instance were the owners of cattle caught trespassed in closed or open forests let off with a simple warning, but in each and every case, save when grazing fees were taken on the detected animals, the cattle were driven to the pounds. No case of cattle trespass was compounded under Section 67 of the Forest Act; but a few cases in which offences had been repeatedly and deliberately committed were taken before the Magistrates for disposal after the cattle had been impounded.

The Collector has remarked on this subject when reviewing the Divisional Forest Report: "Mr. Mádan says there need be no apprehension of trespassing cattle being let off not merely without payment of compensation but without pounding. From what he says, however, I gather that there were cattle so let off. Some trespassing cattle were not taken to the pound and were not made to pay compensation, but had to pay merely the grazing fees. This is, I think, inadvisable, as if graziers who do not take out passes have not to pay more than graziers who do, then people are encouraged to graze their cattle without passes in the hope of escaping payment altogether."

96. In the West Khándesh Division 23,454 animals were impounded, of which 17,217 were caught in closed forests, 8,513 sheep and goats were among the number. This is a small increase on the impounding made during the corresponding 12 months of the year before. The Collector has remarked:—"More cattle have been impounded this year. But the people will not attend to rules unless they are made to suffer for transgressing them." The Collector has likewise remarked:—"Rigorous impoundings of trespassing animals is the only way of making the people conform to the rules and pay grazing fees which they ought to pay; and accordingly no trespassing animals were let off with a mere warning: all were taken to the pound."

97. The tale of impoundings in the Násik Division has fallen very considerably from the number of the corresponding 12 months of the previous year. Only 29,607 animals were impounded during the year of the report, of which 16,719 came from the closed forests; there were 17,663 goats and sheep put into the pounds or 59·6 per cent. of the whole number of impoundings. The cause of the decrease is that there were scarcely any impoundings for about six months, because the cattle found trespassed were driven out of the forests by forest guards, and their owners were warned and their names registered; but a different name was given each time for the owners of cattle caught trespassed, and, doubtless, there were many "pursers' names" amongst them, and cattle were deliberately driven into closed forests in the charge of small boys and old women, so that the persons found in charge of them could not be prosecuted before the Magistrates. In one case which came under the Conservator's notice the old woman and small boys admitted that the forest in which the cattle were found was closed forest, and that they were fully aware of this fact. The Collector remarks that "the working of the grazing rules is on the whole fairly well reported upon"; and it is possible that impounding has been less indiscriminate than formerly. In the whole district 124,775 head of cattle were impounded during twelve months, deducting therefrom 29,607 impounded by the Forest Department, it will be seen that the people themselves have impounded nearly one hundred thousand of cattle which were being trespassed on their own lands. This figure shows how habitual it is for the owners of cattle to allow their animals to forage on other people's property for their food, and how futile it is to adopt mild measures, such as warning owners and turning out cattle, in order to stop such dishonest practice. Villagers have other and stronger means in addition to impounding of putting pressure on their fellow men to keep their cattle from trespassing on to a neighbour's property and in spite of this the tale of private impoundings runs up to a large score.

98. In the Ahmednagar Division 94,998 cattle were impounded by Forest officers, and of these 61,091 were taken from the closed forests; there has been a decrease of about 7,000 head on the impounding of the corresponding 12 months

of 1892-93. The reason is possibly owing to the action of forest guards in shutting their eyes to a good deal of cattle trespass in many cases and not owing to any actual decrease in the number of cattle trespassed. From the way in which wire-fenced plantations of the Forest Department have been treated in the Ahmednagar Division this year, it is impossible to believe that cattle owners in this district are forsaking their habit of driving their animals on to other properties than their own to graze. In some cases cattle owners have not gone beyond twisting together 2 or more of the wires of the wire fencing in order to make ways for cattle to get through. But they do not stop at such mild proceeding. At Bhálavni where there is a wire-fenced reserved forest under treatment for regeneration the villagers who own cattle, uprooted posts, breaking and cutting some of them in two, here and there, and they removed and appropriated wire in considerable lengths, and made wide gaps for cattle to enter into the plantation in many directions. The Pátil and Kulkarni of Bhálavni village were suspended under the Collector's order for three months for the destruction of the wire fencing round the reserved forest.

The village officers of Chapadgaon in the Karjat Range were fined Rs. 25 by the Collector for tearing up the grazing permits which had been issued in respect of some cattle on the payment of the prescribed fees by their owners, and for impounding these cattle, and giving as the reason that the cattle had been grazed in the forest without permits.

Sometimes, though very seldom, forest guards impound cattle falsely, but when complained against an inquiry is always made, and they are prosecuted, if there should be a *primâ facie* case against them, as was done to Bhiku Kashinath, Beat Guard in the Karjat Range; but more frequently do villagers bring in the Magisterial Courts false charges of illegal impounding against forest guards, as was done in the Akola Range this year, when four forest guards, Aba Deoji, Shankar Dewsing, Raju Aminbhai and Dwárku Mahádeo were prosecuted on a complaint made by villagers and were acquitted. One Sakhárám valad Vithoba, cultivator by caste, residing at Párner, and 8 other cultivators were charged before the First Class Magistrate with having endeavoured to cheat by representing to the villagers of Párner in the month of August 1893, that they had farmed from Government the grazing of the open portion of the Párner forest, about 1,800 acres, for the year, and they invited cattle owners to come to them at once and pay fees and take out permits. But their proceedings were brought to light almost immediately by three cattle owners who had been victimized, and made complaints in writing to the Mámlatdár of Párner, when the nine men were prosecuted, but for the want of sufficient and reliable evidence to sustain a conviction, the accused were discharged.

About 70,000 head of cattle were impounded altogether in the Ahmednagar District during the revenue year by the people for trespassing on to their properties, chiefly when the fields were growing corn. These figures show what a general custom it is to turn cattle out of villages intended to wander about in search of food, and how prone cattle owners are to trespass or pasture cattle, or to permit their cattle to trespass on lands which do not belong to themselves, and whereon they have no right of entry.

The Collector of Ahmednagar has remarked on cattle impounding thus:—

"The decrease occurs mainly in the cases of sheep and goats, and is probably due to nomad flocks having been kept from trespassing to the usual extent. There is a slight increase under the head of 'cows and bullocks,' and it is probable that the increase would have been much larger had forest officers in all cases done their duty. Cases are reported by the Divisional Forest Officer in which closed forests were found grazed down to the ground without an instance to show of a single bullock impounded. It is idle to seek for more elaborate reasons for the general decrease. The forest subordinates assign it to the rainfall which brought up grass in Malki numbers. Last year, the same reason was assigned for a vast increase in impoundings, but in that year the rainfall made the grass grow in the forests and thus placed temptation in the way of cattle."

99. The number of cattle impounded in the Poona Division for illicitly grazing inside reserved forests amounted to 51,701, of which 33,321 were taken from closed forests, and these figures show that there were not so many cattle caught in the forests trespassing as during the previous year, nearly ⅔rds of the

animals were sheep and goats. In the Bhimthadi, Indápur and Sirur Ranges in the east of the district, where there is less vegetation than elsewhere, is cattle trespass heavier than in the west, the region of a heavier rainfall. In the eastern tálukás large flocks of goats and sheep are kept by professional graziers, and these animals do incalculable injury to the very much required ligneous vegetation in these arid parts. Now that the pound fee for goats is to be raised from 1 to 4 annas, there will be a considerable decrease in the trespass of goats in future. On the other hand, there is an indication of an improvement on part of forest villages in understanding and conforming to the grazing rules, for the number of cattle for which grazing permits have been issued during the year of this report, both on payment of fees and for free grazing, is considerably in excess of the numbers during the preceding 15 months. Fee paid permits have been taken for 9,891 more cattle, while free permits have been issued to 8,047 more animals.

More cattle were impounded by the people themselves for trespassing on their lands than by the Forest Department from off forests: the number of private impoundings during the revenue year came to 57,725. The Collector has written as under :—

"Cattle trespass is an evil of much magnitude, and I do not think there is much hope of the number of animals impounded by the Forest Department decreasing to any very marked extent for some years to come. I have little doubt that cattle are occasionally allowed to trespass in forest limits, because these limits are not accurately known. I have still less doubt, however, that in the vast majority of instances the trespassing is deliberately caused, and that the extent to which it goes on is limited only by the capability of the local forest officials to make seizures. Given the actual presence of the forest guard and forest boundaries are respected: given his absence and the people graze their cattle wherever at the moment it best suits them."

"The raising of the pound fee on goats is a measure of which the benefits to forest should be given. I regret to say that the Táluka Magistrates do not, as a rule, realize the necessity of punishing with some severity when cases of the deliberate grazing of goats and sheep in closed areas, even in newly planted up areas, are brought before them. They seem unable to look beyond the actual damage done, and to recognize that the consequential damage should be taken into account. I have repeatedly had to call their attention to the subject and with the raising of the pound fees it may be hoped that fewer trespasses will occur, and fewer prosecutions and that when prosecutions are instituted, the Magistrates will recognize that the cases are really of some importance or they would not otherwise have been put before them."

100. In 1892-93 the number of cattle impounded in the Sátára Division during 15 months was—

| | |
|---|---|
| From open forests ... ... ... | 17,276 |
| From closed forests ... ... ... | 30,718 |
| Total ... | 47,994 |

whilst in 1893-94, a period of 12 months, the number rose to—

| | |
|---|---|
| From open forests ... ... ... | 25,740 |
| From closed forests ... ... ... | 27,231 |
| Total ... | 52,971 |

of which total sheep and goats represent 32,288 or 61 per cent. of the whole.

The Divisional Forest Officer remarks :—

"The number of impoundings has increased owing to the public understanding the desire of forest officials not to impound incessantly in accordance with Government wishes, but the Divisional Forest officer doubts any improvement taking place under this procedure of treating trespassing, which is the only serious difficulty in the conservancy of the Sátára forests."

The Collector in forwarding the report remarks :—

"From the Collector's point of view, the noticeable features in the year's forest administration have been the decrease in the revenue from grazing and the increase in the number of animals impounded for trespassing in forest. As a report on the whole question of grazing in forests is shortly to be submitted in accordance with the orders of Government,

no full remarks upon it are necessary here. The undersigned may, however, safely express an opinion that there is something wrong either with the grazing rules themselves or with the manner in which they are worked."

101. The number of impoundings in the Sholápur Division has been fewer this year; 24,954 cattle were taken from closed forests to the pound and 4,860 from open forests, which is less than of last year by 6,249 from closed and 7,002 from open areas. When trespassing cattle were found in the forests for the first time their owners were warned, and the animals were driven out; often this was done for the 2nd time also: and it was only after repeated and deliberate infraction of the law that animals were impounded and action taken against their owners: 8,814 sheep and goats were among the number that found a temporary habitation in the village pounds. The Collector states that—

"The village officers have done their work in connection with the grazing rules well enough. The working of the cattle trespass arrangements is satisfactory."

During the revenue year 1893-94 the number of cattle impounded by the people themselves from trespassing in private lands amounted to 27,406. The Collector states that—

"the number of cattle impounded by the Forest Department shows a decrease, though not so large as in the previous years, the figures for 1891-92, 1892-93 and 1893-94 being 43,488, 34,838 and 32,641, respectively. (The revenue year is here meant.) This is satisfactory inasmuch as it shows that the recent orders of Government for the better administration of the Department have had their effect in lessening the undue harshness hitherto exercised at times by some of the forest subordinates, and in improving the tone of the subordinate service generally. The people too are gradually understanding and appreciating the good intentions of Government in organizing and extending the Department, and they therefore take more care to avoid intentional breaches of the rules of the Department."

102. In order to keep cattle out of forests under reboisement, such as exploited compartments, plantations, &c., fences are erected consisting of the crown branches of the felled trees. And wire fencing has also been put up round a few specially selected areas. Wire is obtained from the Telegraph Department when they have any to spare: and some has been purchased in the Bombay market during the year.

### (*c.*) Improvement of Forest Growth.

#### *(1). Natural Reproduction.*

103. The rainfall of 1893 was seasonable, there were rain showers during the month of May in the Deccan; and in June, July and August, the rain was both plentiful and favourable to the spontaneous germination of seeds and to the growth of plant life; and in October, November and December also rain came fitfully but timely to water the young seedlings, and give them strength to outlive their dormant season and the hot weather. Under Nature's bountiful care and favouring conditions the reproduction and the natural growth of trees in the forests has, during the year, been decidedly good.

104. In the East Khándesh Division the closed portion of the forests in the champaign country south of the Tápti river mostly shows a marked contrast to the open and heavily grazed open areas in their vicinity. In the Tamaswadi closed forest of the Bhadgaon Range all bare and open patches are rapidly closing up. In the Juwardi reserve the Anjan (Hardwickia) and other trees are overtopping the scrub in the ravines and sheltered places. In the Yával Range a profusion of young Anjan may be seen carpeting the forest ground along the base of the Sátpuda hills; this may be owing in great measure to the very heavy seedling of the tree in the previous year. In the forests beyond the Suki river near Pal may be seen a remarkably dense and gregarious crop of Anjan saplings and seedlings, very tall and straight, and promising to turn into a very valuable timber forest hereafter. In the Jámner Range, the teak coppice of past year's fellings has attained a height of about 10 feet in the Gortala reserves; and excellent growth is to be seen in the Wagdhara forests in the teak exploited areas of last season. In the remote valley of Handya-Kundya on the way to Lakhri Hanuman in the Yával Sátpudas teak is growing up very straight, tall and promising amidst dense clumps of Bamboos which shelter the trees from side light, preventing the formation of epicormic

branches. But in Kharia and other forests west of Vaijapur in the Chopda Sátpudas, which are more accessible to Bhil privilege-holders, and are much preyed upon by them in consequence, Salai (Boswellia) has become so predominant, owing to its low commercial value, and the immunity it consequently enjoys at the hands of privilege-holders, that not only teak, but many other valuable kinds of trees, are disappearing entirely from these parts. Looking to the disproportionately worked and overworked condition of this and similarly circumstanced portions of the Sátpuda forests through the promiscuous and indiscriminate fellings which have gone on in them for years past, at the hands of Bhil privilege-holders, it is important that early steps should be taken to systematize exploitations by applying to the forests the provisions of a Working Plan, in order to secure a sustained yield without exhausting particular parts of forests, or certain kinds of trees. The whole forests must be blocked and subdivided into compartments so as to restrict all exploitations by privilege-holders, as well as by permit-holders, to the compartment of the year in each forest block, or else nature will step in and put an end to the convenience of the Bhil by substituting commercially valueless trees for the better marketable kinds. Sentiment cannot prevail against Nature's laws, and *coûte qu'il coûte* the axe of the Bhil in the Sátpuda forests must be brought under regulation, if the substance on which his privileges subsist is not, as is doing round Vaijapur, to fade away. A proposal for bringing these forests under Working Plans has been sent up to the Collector by the Forest officer. The flat lands on the southern bank of the Aner which forms the frontier boundary line against Holkar in the Chopda Sátpudas, show a dense and vigorous self-sown growth of Temburni (Diaspyros melanoxylon) and other trees, including the teak.

105. In the Shirpur Sátpudas and in the western forests of the West Khándesh Division the natural augmentation of the forest growth is very vigorous, pronounced, and striking to the eye, despite forest-fires. The contrast between these forests where grazing is very light, owing to their distance from civilization, and to the paucity of bovine cattle, and to the entire absence of that hereditary foe of the Forest officer, that death dealing locust of ligneous vegetation, the Goat, and forest elsewhere, where cattle are numerous on the hills, is marked. Seedlings everywhere of all kind of trees, covering the ground, and this the rule and not the exception. It tends to confirm the undeniable opinion, founded on wide experience, that excessive grazing is the bane of teak forests: take the Panch Mahál forests and the Deccan teak forests for examples: and it goes likewise to prove that cattle, more particularly when trooping in during the rains, work greater destruction of the regeneration in a forest than forest fires do. Large timber is a necessity in India, and these forests in the wilder parts of the country can be devoted to its production; and here the more vigilant forest guards, at all times active and keen and ruthless in protecting the natural reproduction against destruction from trespassing cattle, are Felis tigris, Felis pardus, Felis jubata, and Cuon rutilans. The Tiwas (Dalbergia oojeinensis) is to be observed reproducing very freely in clumps of seedlings in Taloda, Sháháda and Pimpalner forests. The reproduction of teak (Tectona grandis) and the Anjan (Hardwickia binata) by stool shoots in the several compartments which have been exploited in many directions during years past, is excellent.

106. In the Násik Division, in the Peint forests and elsewhere, cattle and man not dominating, reproduction by nature is fresh and strong.

107. The rainfall in the Ahmednagar Division was, as in other divisions, plentiful and well timed, the average fall during the forest year measured about 26·86 inches; and healthy ambitious seedlings, from self-sown seeds, were seen in many forests of this district.

108. The formerly barren hills in the eastern portion of the Poona District are making a show very rapidly in reboisement. The ravines are filling up fast with young trees, and among others the Nim (Melia azadirachta) is very prominent. The results of forest conservancy are noticeable and encouraging on the lands of Nirgudi Pundodi and Madanvadi in the Indápur Táluka, within the arid belt. The valleys formed by the Malé and Amber streams are a sea of green; the growth on the banks of the streams, the lower ground, being

Bábool, and on the higher slopes chiefly Nim, while the plateau above is being covered very rapidly. This block in a few years will be a valuable timber reserve, and is worthy of a visit as affording evidence of what Nature under forest conservancy will do in the most unpromising places. A herd of wild cattle lives in this forest block which was open savannah land not very long ago. All along the bank of the Bhima away to the far east is a broad line of dark green Bábool reserves; while the hills, which constitute the divide between the Bhima and Nira rivers, is getting covered steadily, if slowly, with ligneous vegetation. In the teak belt the region of a fair and moderate rainfall thousands of teak and other seedlings may be seen at the end of the rains; here coppice shoots grow very vigorously, some of them 8 to 10 feet high before they have had two rains down pouring on them. In the moister region of the ghâts the wild mango and the Jámbhul are coming on in great profusion, and the Hirda tree is steadily increasing in numerical representation: many thousands of self-sown seedlings are to be seen in the forests of Shridhar Pathar about 10 miles north-west from Karkála station on the Great Indian Peninsula Railway.

109. Regarding his division, the Forest Officer of Sátára reports:—

"In the west where cattle are few, and kumri, the great enemy of forests, has been stamped out, natural reproduction has realised the most sanguine hopes: whilst in the east where cattle, especially sheep and goats, overrun the country, natural reproduction is at an absolute standstill, except in a few specially guarded areas."

It is folly to admit goats at all, and to allow the heavy and continued grazing by sheep of the forests on hill sides in the east of the division, the region of a light and very uncertain rainfall, where the preservation of such vegetation as exists requires to be carefully ensured, and the growth of new vegetation requires to be fostered in order to impound the rain fall and to protect against its off-flow on to the plains below. It is just in this portion of the division where the protection against cattle should be strong in the interests of the people themselves; and goats should on no account be permitted to go up on the hill slopes to work destruction. Experience has shown that the hill sides in the arid region which have been divested of all ligneous vegetation will recover themselves with the growth which was once their beauty and their power, if the animals that feed on plant life are kept off. Now the goat is not essential to the peasant cultivator, it does him more harm than it can do good, and it has no claim to "overrun" the forests which are under reboisement in the east of the Sátára Division; and every argument tells for the exclusion of the goat. This is evidenced by the closed forests, in the exploited compartments of the teak forests the reshoots here are very clean growing and vigorous; and the reproduction in the moist forests along the Syhádris is a sight to gladden the heart of a forester, and also of the Revenue officer who sees the promotion of agricultural prospects on the cultivated plains below the hills to depend upon, and to keep pace with, the rehabilitation of the natural reservoirs of the country, *viz.*, forests covering the steep slopes of mountains and hills where the head waters system of great rivers which flow across the continent and water hundreds of square miles of fields of waving corn are to be found, such as the great Krishna river which has its sources in the moist forests bordering the Syhádris in the Sátara Division.

110. In the Sholápur District also there is nothing to complain of nature in her work of reafforestation where cattle and man are not allowed to defeat her laudable efforts.

### *(2) Artificial Reproduction.*

111. As the forest year opens on the 1st July and closes on the 30th June following, the plantations and sowings are generally commenced at the very close of the year, so that the results of the sowings of the year as to whether seeds germinate, &c., are not and cannot be told in the report of the year.

112. The plantation and cultural operations undertaken during the year in the East Khándesh Division are given concisely in the following table: –

| Ranges. | Areas specially treated by hired labour. | | | | |
|---|---|---|---|---|---|
| | Pitted. | Dibbled. | Ploughed up. | Broad-casted. | Total. |
| | Acres. | Acres. | Acres. | Acres. | Acres. |
| Amalner ... ... ... | 20 | ... | ... | ... | 20 |
| Bhadgaon ... ... ... | ... | ... | 225 | ... | 225 |
| Bhusával ... ... ... | ... | ... | ... | 622 | 622 |
| Chálisgaon ... ... ... | ... | ... | 150 | ... | 150 |
| Chopda ... ... ... | 75 | ... | ... | 64 | 139 |
| Edlabad ... ... ... | 34 | 16 | 126 | ... | 176 |
| Erandol ... ... ... | 15 | ... | 82 | 200 | 297 |
| Jalgaon ... ... ... | 158 | ... | 220 | ... | 378 |
| Jámner ... ... ... | 23 | ... | ... | ... | 23 |
| Páchora ... ... ... | ... | ... | ... | 41 | 41 |
| Ráver ... ... ... | ... | 24 | ... | ... | 24 |
| Sávda ... ... ... ... | 200 | ... | ... | ... | 200 |
| Yával ... ... ... ... | 50 | ... | ... | ... | 50 |
| Total .. | 575 | 40 | 803 | 927 | 2,345 |

All the exploited compartments which had been coupes of the year were sown up and, in addition to the above, forest guards made their own sowings and planting, as usual, without additional cost to Government.

113. In the West Khándesh Division 121 khandis of seeds of all kinds were collected by forest guards, chiefly consisting of teak (Tectona grandis), Tiwas (Dalbergia oojeinensis), Sissu (Dalbergia latifolia), Bia (Pterocarpus marsupium), Sadara (Terminalia tomentosa), Dhawda (Anogeissus latifolia), Khair (Acacia catechu): these were sown by the beat guards in shallow pits made inside their reserves and the inferior kinds of seeds were broadcasted. The nurseries at Dhulia and at Dahiwel were kept working as usual; and the total expenditure incurred on plantations and cultural operations amounted to Rs. 537.

114. In the Násik Division a large collection of seeds was made, and nearly 4,000 acres, including exploited compartments, were planted and sown; and an expenditure of Rs. 2,177 was incurred. The regular plantations at Satpur Páthardi and Ganga Kath in the Násik Range and of Sawandgaon in the Málegaon Range were maintained. Large collections of seeds were made by forest guards, who carried out their usual plantation works.

115. In the Ahmednagar Division the whole of exploited compartments in the Bábool reserves, measuring $160\frac{11}{40}$ acres in 5 ranges, were fully ploughed and sown with Bábool seeds obtained from Sind, together with indigenous Bábool seeds at a cost of Rs. 260-9-0. Nimb (Melia azadirachta) seeds were dibbled into the ground over $703\frac{7}{10}$ acres in 6 ranges, at a cost of Rs. 51-4-6, the seeds were sown at distances of 10 feet apart in blanks and open glades. In the 6 ranges of Nagar, Karjat, Shevgaon, Ráhuri, Sangamner and Akola, teak seeds were dibbled into the ground at distances of about 10 feet more or less over open patches, aggregating 1,337 acres, at a cost of Rs. 54-15-6. In forest lands opened to sheep grazing in the Nagar, Párner, Shevgaon, Nevása and Kopargaon Ranges, 1,006 acres were dibbled over with Tarwad (Cassia auriculata), and with seeds of other plants which sheep will not touch. 245,025 small holes were made in these lands, and seeds were put into them under the soil. 1,832 acres of rich black soil in the Nagar, Shrigonda, Karjat, Jámkhed, Shevgaon, Nevása, Ráhuri and Kopargaon Ranges were plentifully broadcasted with Bábool seeds by a gang of labourers; and the cost of this work amounted to Rs. 128-8-0. Some 3,916 pits were dug over blank places in the forests of the 4 ranges of Nagar, Shrigonda, Kopargaon and Akola and were sown at a cost of Rs. 11-8-6; and the germination has been good. In addition to these paid operations the forest guards of the division, each in his own beat, have, without any cost to Government,

(*a*) collected 177 khandis of seeds all kinds,

(*b*) sown seeds in 77,125 pits which they had dug over 182 acres of forest land,

(*c*) dibbled into the ground in 91,560 small holes seeds over a surface of 215 acres,

(*d*) broadcasted seeds over 12,003.

71¼ khandis of seeds were collected by hired labour at a cost of Rs. 327-7-1 and 2¾ khandis of seeds, Sal (Shorea robusta), Shivan (Gmelina arborea), and Anjan (Hardwickia binata) were imported from other districts.

The fixed plantations at Dongargan and Hanmantgaon were kept up during the year, a Máli being employed at each on Rs. 6 per mensem. Good all round work has been done in the forests of this division in furtherance of the regeneration of the forests. The results of the sowings and plantings which were made last year in exploited compartments and other areas are said to be generally satisfactory.

116. The forest guards in the Poona Division collected 112 khandis, 1 maund and 26½ lbs. of seeds in their beats spread over 11 ranges: it may be useful to explain that 28 lbs. make one maund and 28 maunds 1 khandi, and, in addition thereto, 69 khandis, 17 maunds and 15 lbs. of seeds were collected by hired labour at a cost of Rs. 370-9-0. The forest guards, without any cost to Government, made 89,905 pits, 12″×12″, over a total area of 544¼ acres, in which mixed seeds were sown, and 2,482$\frac{1}{10}$ acres, chiefly in the eastern part of the district on hill slopes, were sown broadcast with seeds by forest guards; in some places the seeds were dibbled into the ground. Nim (Melia azadirachta), Sandalwood (Santalum album), mango (Mangifera Indica), teak (Tectona grandis), Jámbhul (Eugenia jambolana), &c., were thus sown.

The cultural works undertaken by hired labour under the direction and superintendence of the forest subordinates consisted of:—

| Ranges. | Pitting. | | Furrows ploughed area. | Broadcasted and dibbled area. | Total area sown. | Cost. | | |
|---|---|---|---|---|---|---|---|---|
| | Pits. | Area. | | | | Rs. | a. | p. |
| Junnar ... ... | 1,000 | 15 | 33 | 60 | 108 | 84 | 14 | 0 |
| Ambegaon ... ... | 1,905 | 275 | ... | 77 | 352 | 56 | 4 | 0 |
| Khed ... ... | 10,000 | 66 | ... | 18 | 84 | 68 | 6 | 6 |
| Mával ... ... | 15,150 | 139⅛ | ... | 68 | 207⅛ | 63 | 13 | 6 |
| Haveli ... ... | 13,150 | 41 | 4 | 170 | 215 | 286 | 6 | 6 |
| Sirúr ... ... | ... | ... | 32$\frac{13}{40}$ | ... | 32$\frac{13}{40}$ | 36 | 7 | 9 |
| Purandhar ... ... | ... | ... | ... | ... | ... | 4 | 4 | 0 |
| Dhond ... ... | 6,000 | 13½ | 189 | ... | 202½ | 422 | 7 | 3 |
| Bhimthadi ... ... | ... | ... | 76 | ... | 76 | 214 | 15 | 0 |
| Indápur ... ... | 2,700 | 7 | 591 | ... | 598 | 669 | 3 | 2 |
| Total ... | 49,905 | 556⅛ | 925$\frac{13}{40}$ | 393 | 1,874$\frac{12}{20}$ | 1,907 | 1 | 8 |

117. In the Sátára Division the artificial plantations undertaken were of the following kinds:—

| Ranges. | Seeds put under ground. | Seeds broadcasted. | Nursery and Plantation. | Cost. | | |
|---|---|---|---|---|---|---|
| | Acres. | Acres. | Acres. | Rs. | a. | p. |
| Jávli ... ... ... | 105$\frac{9}{10}$ | 97 | ... | 133 | 0 | 0 |
| Karád ... ... ... ... | 87¾ | 2,931$\frac{13}{40}$ | ... | 278 | 0 | 0 |
| Khánápur ... ... ... | 12 | 5,921$\frac{39}{40}$ | ... | 14 | 0 | 0 |
| Khandála ... ... ... | 39 | 20 | ... | 39 | 0 | 0 |
| Khatáv ... ... ... | 50 | 85 | ... | 83 | 0 | 0 |
| Koregaon ... ... ... | 141 | 4,409$\frac{9}{10}$ | ... | 209 | 0 | 0 |
| Mahábaleshvar ... ... ... | 57$\frac{1}{20}$ | 79 | ... | 79 | 0 | 0 |
| Mán ... ... ... ... | 11 | 1,578$\frac{13}{20}$ | 0$\frac{3}{20}$ | 96 | 0 | 0 |
| Pátan ... ... ... ... | 25 | 803$\frac{1}{40}$ | 1½ | 170 | 0 | 0 |
| Sátára ... ... ... ... | 126$\frac{1}{20}$ | 1,123⅖ | ... | 309 | 0 | 0 |
| Shirála ... ... ... ... | 7$\frac{7}{20}$ | 1,459¼ | ... | 19 | 0 | 0 |
| Tásgaon ... ... ... ... | 2 | 62 | ... | 75 | 0 | 0 |
| Wái ... ... ... ... | 30 | 644½ | ... | 145 | 0 | 0 |
| Wálva ... ... ... ... | 6 | 601 | 5 | 68 | 0 | 6 |
| Total ... | 700$\frac{1}{10}$ | 19,816$\frac{1}{40}$ | 6$\frac{3}{20}$ | 1,717 | 0 | 6 |

118. There are seven ranges in the Sholápur Division, and here the forest guards collected 74 khandis, 18 maunds and 7 lbs. of seeds; in addition to these 46 khandis, 20 maunds and 9 lbs. were collected locally by hired labour, and 1 khandi, 18 maunds and 4 lbs. were imported, so that 123 khandis, 1 maund and 6 lbs. were available for sowing and were duly sown in the following manner:—

All the exploited compartments which had served as coupes of the year were ploughed all over after the stumps of the felled Bábool trees had been dug out of the ground:—

| Range. | Full ploughed area. | Pitted. | Broadcasted. | Dibbled. | Total. | Cost. |
|---|---|---|---|---|---|---|
| | Acres. | | | | | Rs. a. p. |
| Sholápur ... ... | 41 | 6 | $342\frac{9}{10}$ | $123\frac{2}{5}$ | $513\frac{3}{10}$ | 44 15 0 |
| Bársi ... ... | ... | ... | ... | ... | ... | ..... |
| Mádha ... ... | $335\frac{3}{4}$ | .... | ... | ... | $335\frac{3}{4}$ | 335 0 0 |
| Karmála ... ... | ... | ... | ... | ... | ... | ..... |
| Pandharpur ... ... | ... | ... | $1,101\frac{33}{40}$ | ... | $1,101\frac{33}{40}$ | 12 9 3 |
| Sángola ... ... | ... | ... | $229\frac{11}{40}$ | 20 | $249\frac{11}{40}$ | ... .. |
| Málsiras ... ... | ... | ... | $647\frac{11}{40}$ | $3\frac{3}{4}$ | $651\frac{3}{10}$ | 3 9 0 |
| Total ... | $376\frac{3}{4}$ | 6 | $2,321\frac{11}{20}$ | $147\frac{3}{20}$ | $2,851\frac{9}{20}$ | 396 1 3 |

The smaller kinds of seeds were broadcasted, while the larger kinds as Terminalia, Tectona, Mangifera were put under the soil. Each forest guard within his beat was required to prepare 100 pits for mangoes, 2′ × 2′, and 2,000 pits, one foot in diameter and one foot deep, for other seeds such as Bábool (Acacia arabica), Nimb (Melia azadirachta). The sowings are completed before the burst of the rains. Inspection shows that it is necessary for the round guards, Range Forest Officers and the Divisional Forest Officer to exercise close and searching supervision over this important branch of a beat guard's duty, lest he should let the work slide, a few guards have been detected in failing to dig pits, others in digging a fewer number than they are required to dig, and sometimes the pits are not of the proper dimensions. Each guard has to collect 1 khandi or 784 lbs. of seeds of all kinds in his beat, some of them try to shirk doing so. But on the whole the result of forest guards' sowings is fairly satisfactory; and some of them take a pride in showing their work, as Dr. Brandis, late Inspector-General of Forests, could testify to. Plantations made by forest guards during the last 24 years in the Deccan are now being worked for timber for local supply.

The forest guards of the Sholápur Division without any cost to Government made the following sowings during the year:—

| Ranges. | Dibbled. | Pitted. | Broadcasted. | Total. |
|---|---|---|---|---|
| | Acres. | Acres. | Acres. | Acres. |
| Sholápur ... ... ... | ... | $43\frac{7}{10}$ | $452\frac{1}{5}$ | $495\frac{9}{10}$ |
| Bársi ... ... ... | ... | 12 | 1,160 | 1,172 |
| Mádha ... ... ... | 15 | 40 | $596\frac{3}{40}$ | $651\frac{33}{40}$ |
| Karmála ... ... ... | 6 | 60 | $1,044\frac{17}{20}$ | $1,110\frac{17}{20}$ |
| Pandharpur ... ... ... | 15 | 10 | $2,561\frac{13}{20}$ | $2,586\frac{13}{20}$ |
| Sángola ... ... ... | 20 | $21\frac{1}{4}$ | $310\frac{2}{5}$ | $351\frac{13}{20}$ |
| Málsiras ... ... ... | $\frac{3}{4}$ | 20 | $1,151\frac{1}{8}$ | $1,171\frac{7}{8}$ |
| Total ... | $56\frac{3}{4}$ | $206\frac{19}{20}$ | $7,277\frac{1}{20}$ | $7,540\frac{3}{4}$ |

119. The cultural operations undertaken by the forest guards as a part of their ordinary duties, cannot fail to promote the rewooding of the country. All the forest region of the Circle is parcelled out into beats, not an acre of land in forests is left outside of a beat, and each beat is an unit of seed collecting and of sowings, *i.e.*, of artificial cultural operations by forest guards. So that re-creation, the chief work of forest management in the Deccan, goes on yearly, to a limited extent it may be, in 1,094 centres in the Central Circle, without any extra cost to Government, as will be seen :—

| Divisions. | Number of Ranges. | Number of Beats. | Remarks. |
|---|---|---|---|
| East Khándesh ... ... | 13 | 122 | |
| West Khándesh ... ... | 10 | 160 | |
| Násik ... ... ... | 14 | 220 | |
| Ahmednagar ... ... ... | 11 | 146 | |
| Poona ... ... ... | 11 | 194 | |
| Sátára ... ... ... | 14 | 167 | |
| Sholápur ... ... ... | 7 | 85 | |
| Total ... | 80 | 1,094 | |

It has been said that this "is hardly scientific": at any rate it is useful work; and it shows some return for the employment and the cost of forest guards which cannot be gainsaid, and if much more such work were to be performed by forest guards all over India, in the more treeless parts especially, they would confer a lasting benefit on the country and upon its people.

(3). *Early Thinnings.*

120. No such operations are attempted in any forest of any division in this Circle; and it would be very hazardous to allow forest guards, such as we have, to undertake such scientific operations as early thinnings in their forests.

(4). *Other operations for the improvement of Growing Stock.*

121. Every forest guard is provided with a Maráthi Koita wherewith to cut the creepers within the forests of his beat in the region of timber forests; and the forest guards in charge of the Bábool forests in the champaign country of the Eastern Deccan are provided each of them with a "A'kadi" wherewith to cut, dig up and carry away all prickly pear (Opuntia dillenii) of recent appearance within the forest of his beat.

122. In the Násik Division Rs. 855 were expended in clearing prickly pear from Bábool reserves on the banks of the Godávari river and its affluents.

123. In the Ahmednagar Division 1,897 cart loads of prickly pear were dug out of Bábool forests in the Párner, Shevgaon and Ráhuri Ranges at a cost of Rs. 125, by gangs of labourers, 10 acres which had been choked by it were thus made available for timber growing; and the forest guards cleared out about 1,720 cart loads, freeing thereby an area of 150 acres of this nuisance. All the prickly pear was buried.

124. The work of eradicating prickly pear (Opuntia dillenii) was pushed on vigorously in the Poona Division, mainly in the Bábool reserves on the banks of the Bhima river, and the progress made shows that 84$\frac{1}{40}$ acres of forest lands in six ranges were entirely cleared of it at a cost of Rs. 1,669-12-3. The prickly-pear was either buried deep underground, or was stacked in big heaps to decompose and dry when it was burnt, forest guards cleared away all the fresh growth from their forests.

125. In the Sátára Division prickly pear was removed and destroyed from a Bábool forest on the banks of the Krishna river in the Tásgaon Range, at an expenditure of Rs. 614-10-0. And the forest guards in charge of beats in the moist forests, the region of heavy rainfall, where the Hirda tree (Terminalia chebula) grows, producing the nut which is the myrobolan of commerce, and

which not only brings in a large revenue to Government, but also gives considerable employment and wages to the mountaineer, the forest villager, in these parts in its collection and carriage to forest depôts, were made to clear space for the leading shoots of young Hirda trees, which were being suppressed in the forests, to push up to the light overhead, and for the crowns and branches of older trees which were being constricted to develop; it is fruit and not timber which is the object of this attention.

126. The removal with the burial of the Opuntia dillenii from the Bábool reserves of the Sholápur Division was carried on by beat guards and by hired labour:—

| Ranges. | Square Feet of prickly pear removed. | Cost. |
|---|---|---|
| | | Rs. a. p. |
| Sholápur ... ... ... | 40,578 | 194 8 0 |
| Mádha ... ... ... | 77,661 | 224 4 0 |
| Karmála ... ... ... | 55,354 | 137 4 6 |
| Málsiras ... ... ... | 99,210 | 93 3 6 |
| Total ... | 2,72,803 | 649 4 0 |

The reserves subjected to this operation are on the banks of the Sina and Bhima rivers.

### (5). *Experiments.*

127. There is nothing much to chronicle under this heading. Interchanges of seeds are made between divisions, and seeds are obtained from other parts of India, such as of pines from the Himálayas, of Eucalypti from the Neilgherries. Sal seeds have been received from the Central Provinces, and Sissu (Dalbergia Sissu) from the Changa Manga Plantation in the Punjáb; and sometimes seeds are brought from over the sea. But as the rule exotics do not thrive well in a forest where they are strangers, and they generally die prematurely for want of something they cannot get, or something they get too much of; and it is scarcely desirable to incur any considerable expenditure in endeavouring to make foreign trees take the places of the many beautiful and grand timber and fruit trees, the natives of our own forest soil, which are second to none in the vegetable kingdom of the universe. There are some foreign trees which acclimatize and grow, probably in special localities, under special conditions, such for example as the Casuarina on the sandy sea shore. This tree may be said to be indigenous to Western India now, for it has taken up its permanent abode with us. Its foliage resembling the plumage of the Cassowary is very graceful, and the sighing of the night air through their leaves gives the music of the washing of waves on a shingly shore when the sea is smooth and the wind is sleeping. The timber is good when seasoned, otherwise it warps and cracks, and the firewood is excellent. In Poona and at Panchgani, a hill station, 4,378 feet above sea level, and about 50 miles inland, the Casuarina thrives under a rainfall of from 50 to 60 inches, but Mahábleshvar is seemingly a trifle too wet and damp for its constitution.

The rain tree of Peru, Pithecolobium saman, grows very well in the Deccan. Several trees of the kind may be seen at Poona with a girth of 15″ to 18″ which are not more than 13 or 14 years old. The Grevellia robusta flourishes all over the Deccan, there are some fine samples of it in the grounds of the Forest officer's house at Násik. The Cupressus torulosa exists at Mahábaleshvar, but its growth is very stunted. Several varieties of Australian acacias, Wattle trees, may be seen in Poona and elsewhere.

### (6). *Fencing.*

128. Fencing is an important adjunct of forest conservancy management in the Deccan, for it is under effective protection only that the growth of self-sown seeds, as well as of those artificially sown, in the exploited compartments,

plantations, &c., into trees is assured. Living hedges take a long time to prove a safeguard against the inroads of trespassing cattle, and fences of crown branches of the felled trees, and of Bábool thorns, &c., have only a brief period of serviceable existence: but wire fencing is comparatively everlasting, and it becomes effective directly it is erected, and it can be removed from one place to another when the reproduction which it has been protecting has become "*defensable.*" Some specially selected areas are being wire-fenced, and the following statement will show the expenditure incurred on such fencing, including the cost of wire, staples, &c., purchased for the purpose in the several divisions of the Central Circle :—

| No. | Division. | Quantity of wire, staples, &c., purchased. | | Expenditure incurred. | Length of fence erected. | Remarks. |
|---|---|---|---|---|---|---|
| | | Wire. | Staples. | | | |
| | | Cwt. | Cwt. qr. | Rs. a. p. | M. ft. | |
| 1 | East Khándesh ... | 150 | 0 3 | 1,878 0 0 | 3 4,466 | |
| 2 | West Khándesh ... | 30 | 0 3 | 666 14 0 | 4 0 | |
| 3 | Násik ... ... | 200 | 5 0¼ | 4,874 0 0 | 9 0 | |
| 4 | Ahmednagar ... | 30 | 0 3 | 498 3 6 | ... | |
| 5 | Poona ... ... | 40 | 0 4 | 623 4 0 | ... | No wire fence was put up. |
| 6 | Sátára ... ... | 30 | 0 3 | 474 1 0 | ... | Do. do. |
| 7 | Sholápur ... ... | 50 | 0 5 | 795 15 0 | 1 4,595 | |
| | Total ... | 530 | 10 1¼ | 9,810 5 6 | 18 3,781 | |

In the valuable Transpurna Bábool reserves opposite Ghodasgaon in the East Khándesh Division, four tracks, each 100 feet wide, have been cleared for cattle to go through these reserves to the grazing grounds beyond them; and a commencement has been made to guard all these tracks with wire fences, and nearly four miles were thus fenced in at the close of the year.

Wire fencing work in the West Khándesh Division was entirely confined to the Laling reserve in the Dhulia Range, and the length of fencing erected was 4 miles. Thorn fences were made round the stools of departmentally felled Anjan (Hardwickia binata) in the Dhulia Range, in order to protect the very delicate reshoots of this species from stray cattle.

In the Násik Division the work of wire fencing was undertaken in the following ranges at a cost of Rs. 4,874 :—

| Range. | Locality. | Length in miles. |
|---|---|---|
| Niphád ... ... | Narayen Tembhi ... | 3¾ |
| Sinnar ... ... | Ghorwad and Shivde ... | 1½ |
| Nándgaon ... ... | Nándgaon ... ... | ¾ |
| Igatpuri ... ... | Pimpalgaon Ghadga ... | 1½ |
| Násik ... ... | Ganga Kath ... ... | 1½ |
| | | 9 |

The Bábool coupes exploited during the year in the ranges of Shevgaon and Kopargaon in the Ahmednagar Division were fenced round with Bábool thorns, at an expenditure of Rs. 155-12-6, and in the ranges of Nagar, Shrigonda, Ráhuri and Sangamner Bábool thorn fencing was put up by the agency of Beat guards. In addition to this 1,700 Bámboo shoots and 16,200 aloe bulbs were planted by forest guards along forest boundaries free of cost. The Shendi reserve in the Nagar Range is to be fenced with wire; and wire has been purchased for the purpose, and it will be erected next year.

For the protection of plantations and areas under special treatment for reboisement in the Bhámburda, &c., reserves in the Haveli Range of the Poona Division, Rs. 28-4-6 were spent in repairing the wire fences already put up; and, in addition to this, Rs. 614-11-0 were spent in erecting fences of thorns round Bábool coupes in the Haveli, Sirur, Dhond, Bhimthadi and Indápur Ranges. No new wire fencing was put up during the year 1893-94.

In the Sátára Division a start was made to lay the first wire fence in the division round the Burli Amnapur reserve, coupes Nos. 1 to 5 of the Tásgaon Range, but the work was not completed before the year closed.

In the Sholápur Division an area of 25 acres and 37 gunthas was enclosed with wire fencing in the Sholápur and Karmála Ranges, and an expenditure, exclusive of the cost of wire, of Rs. 60-6-0 was incurred.

Wire is obtained from the Telegraph Department and the G. I. P. Railway Company, when they have any to spare, and some has been purchased during the year in the Bombay market.

### (*d*). Exploitation of Major Forest Produce.

#### (*1*). *Clear or Regeneration Fellings.*

129. In the East Khándesh Division two compartments, one of 33 acres and the other of 55 acres, in the Somangaon and Sukli forest blocks, respectively, of the Transpurna Bábool reserve forest, which are being worked by area, under a rotation of 40 years, were exploited according to the provisions of the Working Plan. A clear felling of 500 khandis of Bábool firewood was made over an area of 1·22 acres in the Bhusával Range, and an additional area of 777 acres of disforested lands in the Chopda Range was cleared of all its trees.

130. At Ubhand in the Nizámpur Range of the West Khandesh Division, 200,000 cubic feet of Kheir (Acacia catechu) and other inferior firewood were felled, and the coupe was afterwards sown up with seeds.

131. The teak trees in Dálhi numbers in 9 villages of the Kalvan Range were cleared away by departmental agency, and the timber was then sold by auction. And in the Peint Range, the teak trees standing on all lands outside the forest boundaries in 15 villages were felled and removed by purchasers, at their own expense, to whom the standing trees had been sold by public competition. In the Báglán Range a compartment was exploited departmentally; and the ground was subsequently sown up with seeds.

132. In the Ahmednagar Division a great number of the Bábool forests has been blocked and subdivided into 40 compartments each, by area, and one of these is made a coupe of the year, all the trees standing thereon being sold by auction or tender to the highest bidder. The fellings are required to be completed by the end of March, and all the material to be removed from the coupe by the end of April, when the compartment is returned to the Forest Department, who enclose it with a thorny fence, plough up all the ground, and resow it with Bábool and other seeds, the usual associate of the Babool.

The following table shows the number of coupes exploited in each range, their aggregate area and the price they realized :—

| Range. | Number of coupes. | Total area. | | Price. |
|---|---|---|---|---|
| | | A. | g. | Rs. |
| Nagar ... ... ... | 2 | 12 | 24 | 886 |
| Shrígonda ... ... ... | 4 | 31 | 32 | 600 |
| Shevgaon ... ... ... | 5 | 28 | 8 | 458 |
| Ráhuri ... ... ... | 2 | 15 | 8 | 316 |
| Kopargaon ... ... ... | 17 | 102 | 31 | 548 |
| Sangamner ... ... ... | 3 | 18 | 26 | 395 |
| Total ... | 33 | 209 | 9 | 3,203 |

133. All the Bábool forests on the banks of rivers in the Poona Division which are being managed under a Working Plans founded on area had, each of them, a compartment exploited by purchasers at their own expense under clear fellings. The standing trees are sold to the highest bidder, and the following statement shows the sale results, &c., of the firewood coupes :—

| Range. | Number of coupes. | Total area of coupes. | Number of trees exploited. | Yield in cubic feet. | Receipts. |
|---|---|---|---|---|---|
| | | A. g. | | | Rs. |
| Indápur ... ... ... | 2 | 4 7 | 485 | 12,825 | 270 |
| Sirúr ... ... ... | 11 | 43 6 | 2,969 | 60,220 | 1,365 |
| Bhimthadi ... ... ... | 8 | 38 18 | 3,871 | 39,325 | 562 |
| Dhond ... ... ... | 22 | 88 35 | 4,100 | 95,090 | 2,714 |
| Haveli ... ... ... | 6 | 18 26 | 766 | 31,450 | 1,146 |
| Total ... | 49 | 193 12 | 12,191 | 238,910 | 6,057 |

Some compartments, the trees in which could not be sold standing, were exploited departmentally to the following extent:—

| Range. | Cubic feet. | Cost. | Receipts. | Remarks. |
|---|---|---|---|---|
| | | Rs. | Rs. | |
| Dhond ... ... ... ... | 2,878 | 131 | 342 | |
| Junnar ... ... ... ... | 11,006 | 57 | 411 | |
| Sirur ... ... ... ... | 21,150 | 124 | 390 | |
| Total ... | 35,034 | 312 | 1,143 | |

134. In the Sholápur Division compartments were exploited in 3 forest blocks only of the Bársi Range, and in 11 of the Mádha Range; all these forests have been created by the Forest Department during the past twenty years. 14 compartments were worked and a sum of Rs. 4,342 was realised by the sale of the timber.

### (2). *Selection Fellings.*

135. In the Peint forests of the Násik Division 80 khandis of Sissum (Dalbergia latifolia) were sold on foot to purchasers to fell and remove at their own cost, at Rs. 6 per khandi of 12½ cubic feet, and 80 khandis of Tiwas (Dalbergia oojeinensis) were likewise sold in the same manner, the trees having been selected and marked for the axe by Forest officers.

136. In no other division was a selection felling made save in the Sholápur Division, where 84 selected Bábool trees yielding 2,295 cubic feet of firewood, were felled in the Sadar bazaar reserved forest, and the material, after it had been brought out and stacked departmentally, was sold by public auction for Rs. 254.

### (3). *Improvement Fellings and* (4). *Coppice Fellings.*

137. The teak forests occupying the second distinct forest belt from the Syhadris eastward, in the Poona, Ahmednagar, Sátára and Nasik Districts, as well as the moist or evergreen forests which occupy the first line bordering the ghâts, and also the teak forests of Khándesh which are scattered all over that district, are worked under a 40 years' rotation, by area, as has already been explained. The fellings made in these forests may be classed as coppice with standards, and also improvement, for the main object is to improve the forest

by removing all mature, badly grown, diseased and dying trees, but at the same time taking care to preserve the factors of the forests, and to guard against external dangers; seed-bearers for the natural shedding of seeds, of all kinds, but of teak and the more valued kinds in greater preponderance, are reserved; and in selecting the standards and in rejecting trees to be given to the axe, care is taken to protect against scour resulting from the monsoon and other storms, and to maintain to a considerable extent the overhead cover against the sun and winds, &c. A great portion of the reproduction in both classes of forests is by coppice shoots, many of the trees, broad-leaved species especially reproduce readily by shoots from the roots, stool or stem; and although this is the sheet anchor for the regeneration of the forests, still it is not depended upon entirely. Letting in light by the removal of trees causes the germination of seeds which have been lying on the ground dormant waiting for the magic touch to burst them into life. Then again blank patches of ground within the exploited coupe are sown with seeds after the ground has been prepared for their reception.

138. In the forests of the Chálisgaon, Jámner and Yával Ranges of the East Khándesh Division teak rafters, crooked, stunted, unsound and diseased, were exploited, and in the Pátna reserve, about 2,000 khandis of firewood were cut out of a compartment of 250 acres. Two coupes were worked in the Mahádev forests of the Sávda Sátpudas, one of 53 and the other of 83 acres, about 10 trees per acre having been reserved, the species consisted of Anjan (Hardwickia binata), Dhawra (Anogeissus latifolia), Salai (Boswellia thurifera), &c., with a sprinkling of teak.

139. In the West Khándesh Division teak trees were exploited departmentally from the forests of the different ranges to the following extent:—

| Range. | Number of pieces. | Cost. | Receipts. |
|---|---|---|---|
| | | Rs. | Rs. |
| Akráni ... ... ... ... ... | 5,061 | ... | 3,192 |
| Nandurbár ... ... ... ... ... | 21,415 | 583 | 9,450 |
| Navápur ... ... ... ... ... | 36,227 | 1,390 | 30,406 |
| Pimpalner ... ... ... ... ... | 15,930 | 450 | 5,857 |
| Sháháda ... ... ... ... ... | 7,043 | 176 | 1,782 |
| Shirpur ... ... ... ... ... | 20,473 | 609 | 6,562 |
| Taloda ... ... ... ... ... | 35,448 | 987 | 15,205 |
| Total ... | 141,597 | 4,195 | 72,454 |

The Laling forests of the Dhulia Range were subjected to an improvement felling; 250,000 cubic feet of wood was felled at a cost of Rs. 1,679, which sold at auction for Rs. 8,505; this wood was destined for the firewood supply of the town of Dhulia, for steam cotton factories, and for household consumption also. In the Nizámpur Range 200,000 cubic feet of firewood was felled and brought out at a cost of Rs. 1,000, and they sold for Rs. 4,010.

140. In the Násik Division the following number of compartments in several ranges was worked under this method:—

| Range. | Number of Compartments. | Price. |
|---|---|---|
| | | Rs. |
| Násik ... ... | 8 | 3,044 |
| Igatpuri ... ... | 9 | 357 |
| Sinnar ... ... | 3 | 521 |
| Nándgaon ... ... | 17 | 1,668 |
| Total ... | 37 | 5,590 |

141. The teak forests in the Akola and Sangamner Ranges and the Jámbhul (Eugenia salicifolia) forests on the bank of the Mula river, in the Ahmednagar Division, were thus worked; with the following results :—

| Range. | Species. | Number of trees. | Yield. | |
|---|---|---|---|---|
| | | | Pieces. | Firewood. Cubit feet. |
| Sangamner ... ... ... ... ... | Teak ... | 4,000 | 3,421 | 16,596 |
| Do. ... ... ... ... ... | Jámbhul... | 3,002 | 6,181 | 14,670 |
| Akola... ... ... ... ... ... | Teak ... | 19,326 | 10,217 | 27,556 |
| Total ... | ... | 26,328 | 19,819 | 58,822 |

142. The teak forests in the teak belt, and some evergreen forests in the region of heavy rainfall, were worked in the Poona Division under the Working Plans arrangements governing their treatment. The unreserved trees in the compartment, which was the coupe of the year, were sold standing for purchasers to fell and remove at their own cost; and the following table shows the extent of the exploitations :—

| Range. | Number of compartments. | Area. | Number of trees. | Receipts. | Remarks. |
|---|---|---|---|---|---|
| | | Acres. g. | | Rs. | |
| Haveli... ... ... | 7 | 310 13 | 12,071 | 7,169 | Teak forests mixed with other species, teak predominating greatly. |
| Khed ... ... ... | 4 | 150 0 | 1,657 | 1,566 | |
| Ambegaon ... ... | 6 | 289 15 | 7,384 | 4,030 | |
| Junnar ... ... | 4 | 182 9 | 3,361 | 2,357 | |
| Purandhar ... ... | 4 | 171 0 | 4,936 | 2,300 | |
| Mával ... ... ... | 5 | 243 0 | ... | 1,181 | Evergreen. |
| Total ... | 30 | 1,345 37 | 29,409 | 18,603 | |

A few compartments, the timber of which could not sell standing, were exploited departmentally.

| Range. | Number of trees. | Yield. | | Cost. | Receipts. | Remarks. |
|---|---|---|---|---|---|---|
| | | Timber. Cubic feet. | Firewood. Cubic feet. | | | |
| | | | | Rs. | Rs. | |
| Ambegaon ... ... ... | 1,106 | 4,067 | 1,100 | 78 | 805 | |
| Khed... ... ... ... | 1,720 | 11,751 | 6,000 | 158 | 2,361 | |
| Total ... | 2,826 | 15,818 | 7,100 | 236 | 3,166 | |

143. In the Sátára Division all the compartments which are made coupes of the year are exploited departmentally, and none are sold for exploitation by purchasers; and the operations of the year were to the following extent :—

| Range. | Number of coupes. | Total area. | Yield. | | Cost. | Receipts. | Number of trees reserved. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | | Timber. | Firewood. | | | | |
| | | Acres. | | | Rs. | Rs. | | |
| Jávli ... ... | 1 | 44 | ... | 3,066 | 83 | 162 | 420 | |
| Karád ... ... | 4 | 259 | 4,510 | 61,634 | 1,943 | 5,872 | 4,502 | |
| Khándala... ... | 1 | 52½ | 509 | 8,366 | 589 | *386 | 1,468 | *Part only sold. |
| Koregaon... ... | 1 | 79¼ | 6,638 | 14,983 | 463 | 4,506 | 2,743 | |
| Mahábaleshvar ... | 1 | 68 | ... | 23,583 | 321 | †85 | 50 per cent. | † Part sold. |
| Sátára ... ... | 3 | 135 | 3,638 | 18,547 | 884 | 3,912 | 3,032 | |
| Wái ... ... | 1 | 70 | 1 250 | 3,466 | 197 | 1,151 | 1,571 | |
| Khatáv ... ... | 1 | 60 | 918 | 10,297 | 218 | ‡... | 1,135 | ‡ Part sold balance. |
| Total | 13 | 767¾ | 17,463 | 143,942 | 4,698 | 16,074 | 14,871 | |

The Divisional Forest Officer, Sátára, Mr. Fagan, writes:—"The coupe of one year old is a sight to please the eye of the most critical Forester, I have never seen anything in India like it before."

144. No forests in the Sholápur Division were worked by either of these methods, because there are none yet fit to work.

*(5). Unregulated fellings.*

145. In the East and West Khándesh Divisions the exploitations of timber, firewood and Bámboos made by Bhils, in exercise of their rights or privileges, in the Sátpuda forests come under this method. There is no regulation whatever: the Bhil may cut where he likes, what he likes, save 3 or 4 reserved species; and when he likes: and he fells a tree and carries out only the more valuable portion of it which he can bear away conveniently, leaving all the rest to lie on the ground and rot, or to feed a forest fire. There is no restriction as to particular areas; trees that are not mature are not spared; anything is felled: and in consequence of this unregulated license of the axe the more accessible portions of the forests are cleared of the commercially valuable kinds of trees, and are deteriorating. All the trees are cut down over a certain area which is determined by the number of trees required to be put into the market.

146. Fellings made to clear the boundary lines of reserved forests in the Násik and Sátára Divisions, and also fellings of reserved trees made on occupied lands outside of forest boundaries in the Násik, Poona and Sátára Divisions are only regulated by the demand, and by the area to be cleared in the year. Free grants of timber made by Revenue Officers to cultivators and others which are supplied, whenever directed, by felling trees in parts of the forests, and at such times as may be most convenient to the grantees, come under this heading.

(*e*). Extraction and Transport of Major Forest Produce by land and water.

147. When timber operations are conducted departmentally, the trees are felled by hired labour, and the material is brought outside the coupe to a temporary depôt, and is there sold by auction. No conveyance of timber or other forest produce from the forest to its destination or place of consumption is undertaken departmentally, but all such work is left to private enterprise. Purchasers move their timber, &c., in carts, &c., logs are sometimes, and in some parts dragged by bullocks and buffaloes; firewood and charcoal are carried by pack-bullocks, mules, donkeys and sometimes on men's heads, as well as in carts. Floating is resorted to by contractors and purchasers where there is good water carriage available, such for example the Tápti river and the Narbadda in the West Khándesh Division for floating timber, Bámboos, &c., from the Navápur and Akráni forests to the markets of Surat and Broach on the coast. Permanent roads constructed by the Department of Public Works, and fair weather cart-roads tap almost the entire forest region of the Central Circle. The Akráni forests of West Khándesh and the Sátpuda forests of West and East Khándesh are about the only extensive and valuable forests which are practically not exploited by wheeled carriage. The Koyna river in the Sátára District is utilised by purchasers for floating timber from the forests to the markets east of the Southern Marátha Railway line; and the railways are used very freely for the distribution of timber and other forest produce; for the conveyance of Hirdas, the myrobolans of commerce, to Bombay City; for export and for the conveyance of timber to large centres of consumption such as the City of Poona.

*(f).* Exploitation of Minor Forest Produce.

*(1). Extraction of Fodder.*

148. In all divisions there are certain forest areas which are reserved specially for the exploitation of grass by hand. Such areas are termed valuable Kurans, and grass is likewise exploited by hand from closed forests: the right to exploit the grass is sold by auction, the extent to which this has been carried during the year of the report will be seen in the following table:—

| Division. | Area | Price. |
|---|---|---|
| | Acres. | Rs. |
| East Khándesh ... ... ... | 20,324 | 14,938 |
| West Khándesh ... ... ... | 20,827 | 9,520 |
| Násik ... ... ... ... | 33,878 | 14,083 |
| Ahmednagar ... ... ... | 67,990 | 3,087 |
| Poona. ... ... ... ... | 87,076 | 3,453 |
| Sátára ... ... ... ... | 8,554 | 6,278 |
| Sholápur ... ... ... ... | 4,195 | 6,808 |
| Total ... | 242,844 | 58,167 |

Grass is also removed on permits issued on the payment of fees: and from the East Khándesh forests 38,200 cart-loads of grass valued at Rs. 4,775 were thus taken.

In West Khándesh

| | Rs. a. p. |
|---|---|
| 25,611 cart-loads were taken at ... | ... 0 2 0 |
| 677 bullock-loads do. ... | ... 0 0 6 |
| 3,054 head-loads do. ... | ... 0 0 3 |

In the Ahmednagar Division the grass produced on 1,230 acres of reserved forest, valued at Rs. 3,503-0-0, is given to the Commissariat Department, free of charge, to cut and take: and on 630$\frac{7}{20}$ acres, valued at Rs. 1,794, to the Remount Department, as under:—

| Forest. | Area. | Value. | Remarks. |
|---|---|---|---|
| | A. G. | Rs. | |
| Narayendoho ... ... ... | 34 4 | 97 | To Remount Department. |
| Chichondi Patel ... ... ... | 596 10 | 1,697 | |
| Total ... | 630 14 | 1,794 | |
| Shendi ... ... ... ... | 272 36 | 777 | To Commissariat Department. |
| Imámpur ... ... ... ... | 733 34 | 2,090 | |
| Ghospuri ... ... ... | 223 10 | 636 | |
| Total ... | 1,230 0 | 3,503 | |

and in the Poona Division the grass of 59 reserved forests with an acreage of 18,023 acres, valued at Rs. 24,000, is given to the Commissariat Department at Poōna for the supply of hay to feed the Government cattle and horses belonging to the Military Department. In this manner Rs. 29,297 are lost to the forest revenues of the Circle, and the Provincial Service Budget is deprived of Rs. 14,648½.

### (2). *Grazing.*

149. There are three methods for the management of grazing in forests, *viz.*, (1) Free grazing which is allowed to the agricultural cattle of a forest village which has contributed old gáirán to forests, and also to the cattle in Bhil settlements inside the reserved forests in the Khándesh District, (2) Grazing on payment of fees at the prescribed rates, (3) Grazing by sale of the right to do so.

150. The rates of fees charged for grazing are as under:—

| | Permits issued by Village Officers. | | | | Permits issued by Forest Officers. | | |
|---|---|---|---|---|---|---|---|
| | Cultivators' Cattle. | | | Professional Graziers. | | | Outside Cattle. | | |
| | Rs. | a. | p. | Rs. | a. | p. | Rs. | a. | p. |
| Buffaloes... ... ... ... ... | 0 | 8 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| Cows ... ... ... ... ... | 0 | 4 | 0 | 0 | 8 | 0 | 0 | 8 | 0 |
| Horses and asses ... ... ... ... | 0 | 4 | 0 | 0 | 8 | 0 | 0 | 8 | 0 |
| Sheep ... ... ... ... ... | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 0 |
| Goats ... ... ... ... ... | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 4 | 0 |

In the Khándesh District the charge for goats, the property of professional graziers, admitted into the forests to graze, is 8 annas.

151. No grazing is sold by auction in the Khándesh and Ahmednagar Districts; in Násik the grazing of certain reserved forests (valuable Kurans) is sold to commence after the grass has been cut and to last for a limited period of time. In the Poona Division the grazing of the open forests in Koli country bordering the Syhádris is sold by auction.

152. The number of cattle of different kinds which grazed in the forests during the year is given below :—

| Division. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Total. |
|---|---|---|---|---|---|---|
| East Khándesh... ... | 24,220 | 137,085 | 40,949 | ... | 1,620 | 203,874 |
| West Khándesh ... | 21,181 | 164,524 | 248,738 | ... | 5,805 | 440,248 |
| Násik ... ... ... | 13,925 | 152,052 | 48,588 | ... | 459 | 215,024 |
| Ahmednagar ... ... | 6,691 | 113,965 | 56,123 | ... | 217 | 176,996 |
| Poona ... ... ... | 13,215 | 105,287 | 76,206 | ... | 60 | 194,768 |
| Sátára ... ... ... | 27,830 | 137,351 | 33,619 | ... | 7 | 198,847 |
| Sholápur ... ... | 2,697 | 35,550 | ... | ... | 120 | 38,367 |
| Total ... | 109,799 | 845,814 | 504,223 | ... | 8,288 | 1,468,124 |

And the following of the above numbers, respectively, enjoyed free grazing :—

| Division. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Total. | Value of the Grazing. |
|---|---|---|---|---|---|---|---|
| | | | | | | | Rs. |
| East Khándesh ... | 1,514 | 8,228 | 19 | ... | 915 | 10,676 | 5,777 |
| West Khándesh ... | 2,323 | 20,926 | 2 | ... | 335 | 23,586 | 6,476 |
| Násik ... ... | 6,482 | 43,538 | 4,335 | ... | 30 | 54,385 | 28,808 |
| Ahmednagar... ... | 237 | 10,305 | 5,837 | ... | ... | 16,379 | 3,247 |
| Poona ... ... | 10,628 | 83,728 | ... | ... | ... | 94,356 | 52,990 |
| Sátára ... ... | 25,949 | 129,746 | ... | ... | ... | 155,695 | 77,848 |
| Sholápur ... ... | 1,130 | 7,695 | ... | ... | 75 | 8,900 | 2,473 |
| Total ... | 48,263 | 304,166 | 10,193 | ... | 1,355 | 363,977 | 1,77,619 |

153. In the East Khándesh forests more animals paid fees and grazed than during the preceding year, although it was of 15 months, the year of the report being of 12 months, so that the receipts from fees increased by Rs. 1,215. The collection of outstandings of the previous year due by certain wandering professional graziers contributed to this sum; but nevertheless it points to the grazing rules being understood and worked up to by the people, as well as by village officers.

154. Professional graziers in the West Khándesh Division pay full fees, ordinary cultivators pay half fees, and the cultivators in the Pimpalner, Nizámpur and Nandurbár Ranges pay quarter fees. No less than 309,733 cattle, the property of professional graziers, were grazed in the forests, a large proportion of these animals was sheep and goats, and so many as 248,738 of sheep and goats took advantage of forest grazing.

155. Free grazing is allowed to all the cattle of the Peint Táluka in the Násik Division and 30,217 animals, including 4,335 sheep, were free grazed in the forests of Peint. Fees for grazing were paid for 160,639 head of cattle throughout the district and this revenue from this source amounted to Rs. 40,135.

156. In the Ahmednagar Division 1,514 cattle of the bovine kinds in excess of the number of the preceding year were grazed in the forests; on the other hand there were 4,367 fewer sheep and goats grazed this year than last. The fees collected on grazing permits amounted to Rs. 34,027. Some complaints were made in 1892-93 of the insufficiency of provision made for sheep grazing in the forests of this division, and the following table will show the area opened to sheep with the results:—

| Ranges. | Acres. | Sheep grazed. | Fees collected. |
|---|---|---|---|
| | | | Rs. a. p. |
| Nagar ... ... ... ... | 10,405 1/8 | 2,338 | 159 8 0 |
| Párner ... ... ... ... | 23,613 1/8 | 8,762 | 611 8 0 |
| Shrígonda ... ... ... ... | 4,738 1/2 | 3,052 | 168 6 0 |
| Karjat ... ... ... ... | 4,180 7/8 | 8,369 | 577 0 0 |
| Shevgaon ... ... ... ... | 197 1/20 | *Nil.* | ..... |
| Nevása ... ... ... ... | 35 4/5 | *Nil.* | ..... |
| Ráhuri ... ... ... ... | 7,298 31/40 | 8,900 | 598 8 0 |
| Kopargaon ... ... ... ... | 1,349 2/5 | 1,253 | 98 12 0 |
| Sangamner ... ... ... ... | 13,523 9/40 | 17,612 | 1,104 8 0 |
| Total ... | 65,341 7/8 | 50,286 | 3,318 2 0 |

It had been reckoned that 196,028 sheep could be provided with a sufficiency of grazing in the forests specially opened in the behalf of these animals. But only 50,286 sheep took advantage of the grazing against 54,656 grazed during 1892-93.

Goats which work death upon ligneous vegetation were grazed in the forests under the rule which admits 1 goat with every 50 sheep, to the extent of 226 animals, on payment of fees amounting to Rs. 31, but the damage they did with their macerating teeth may be valued at several multiples of this sum.

157. In the forests of the Poona Division 67,053 sheep and goats of forest villagers were permitted to graze, and 9,153 belonging to professionals. The fees collected in grazing permits amounted to Rs. 13,353-11-0 against Rs. 11,546 of the year before, thus evidencing a better understanding of the grazing rules and less endeavour to graze illicitly, without taking permits or paying fees.

158. Grazing is permitted by contract in 38,940 acres of the Sátára forests, which the Divisional Forest Officer states are the best pastures of the country, and are improving daily, *as no sheep and goats are allowed upon them.* There were in addition thereto 289,998 acres open to cattle on free or fee paid permits according to their classification. Sheep and goats are permitted to graze in the eastern forests in the region of light rainfall where the ligneous vegetation is comparatively sparse, and requires strong protection for the preservation of the hill sides against external dangers. In the open forests in the region of heavy rainfall 3 animals are allowed on to every acre and in the eastern forests only 2. No less than 32,698 sheep and goats belonging to forest villages and 921 to professionals were grazed on the eastern hills, where the tree growth is sparse and backward, and the damage they have done has been great.

159. In the Sholápur forests a larger number of cattle was grazed than last year; and the revenue was greater, which is a sign of improvement in taking out permits.

160. Statement showing the cattle census of the different collectorates comprising the Central Circle during 1893-94:—

| No. | Collectorate. | Cows and Bullocks. | Buffaloes. | Horses. | Asses and Mules. | Sheep. | Goats. | Camels. | Elephants. | Total. | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Khándesh ... ... | 760,865 | 205,053 | 26,662 | 7,863 | 38,994 | 206,342 | 94 | ... | 1,245,873 | |
| 2 | Násik ... ... ... | 528,170 | 78,146 | 15,972 | 3,719 | 130,536 | 165,592 | ... | ... | 922,135 | |
| 3 | Ahmednagar ... ... | 689,716 | 60,991 | 25,471 | 8,109 | 313,903 | 237,933 | 5 | ... | 1,336,128 | |
| 4 | Poona ... ... | 546,897 | 76,899 | 14,804 | 5,981 | 244,861 | 167,768 | 17 | ... | 1,057,227 | |
| 5 | Sátára ... ... | 551,225 | 168,387 | 15,855 | 2,899 | 363,681 | 136,698 | ... | ... | 1,238,745 | |
| 6 | Sholápur ... ... | 476,159 | 71,160 | 13,935 | 4,146 | 242,206 | 136,070 | ... | ... | 943,676 | |
| | Total ... | 3,553,032 | 660,636 | 112,699 | 32,717 | 1,334,181 | 1,050,403 | 116 | ... | 6,743,784 | |

(*3*). *Miscellaneous Produce.*

161. Under this heading come flowers, fruit, honey, wax, surface-soil, rock and minerals, reeds, oil, bark, &c.

The Collector of Khándesh has issued the following order with reference to Government Resolution No. 9846 of the 15th December 1892, to regulate the exploitation of minor forest produce :—

(1). Minor forest produce is to be held to be all forest produce, that is not timber, firewood, grass, charcoal, Bámboos and stones.

(2). The minor articles to be exported by the Forest Department in the East Khándesh Division are Hirdas, grass oil, mango fruits, all other minor articles will be collected free of charge and without restriction by the people.

(3). The arrangements and conditions will be that the right to taking grass oil, and the right of taking mangoes will be farmed out annually by the Forest Department. The privilege-holders under the Privilege Code will have to bring the Rosha grass, they cut, to the person who has taken the Rosha oil farm from Government. Hirdas will not at present be exploited at all.

Rosha oil is manufactured in the Khándesh and Násik Districts from a large bladed aromatic-grass (Andropogon schœnanthus) known as Rosha oil grass. The oil is extracted by distillation. The grass flowers in October and November, and is then fit for cutting and use. From 373 lbs. of grass 1 lb. 5½ ozs. of oil were extracted by distillation under an experiment made in Bombay by Surgeon-Major B. A. Dymock, when Medical Storekeeper at Bombay. The oil is used by natives as a liniment in chronic rheumatism and neuralgia, and is also said to be a powerful hair restorer. A still is erected on the bank of a stream, consisting of a fire place with a large boiling pot above, and the latter is connected by a pipe with a large metal vessel placed in the water which acts as a condenser. The boiling pot is then filled with grass and water, and the lid of it is hermetically fastened down, and a fire is lighted under the boiler, from which the steam or vapour passes through the pipe into the pot under water in the stream, and is there precipitated in the form of oil, which is sent to Bombay for export. About 50,000 lbs. are exported annually, some to Europe, but to the Red Sea ports chiefly. Rosha oil is generally adulterated with groundnut oil, rape and linseed oils, and chiefly with oil of turpentine, before being sent to Bombay, and it is used itself to adulterate attar of roses. Rosha grass is abundant in the forests of the North Tápti ranges, and also in the forests bordering the ghâts in the West Khándesh Division : in East Khándesh the grass is to be found sparsely growing in the Satpudas, and in the Jámner Range ; and in the Násik Division, it is found in the forests bordering the Syhádris, and also the Saptashring Range. The revenue derived from the contracts for Rosha oil was as under :—

| | Rs. |
|---|---|
| East Khándesh ... ... ... ... | 388 |
| West Khándesh ... ... ... ... | 15,655 |
| Násik... ... ... ... ... | 2,081 |
| Total ... | 18,124 |

which is an increase by Rs. 3,456 on the revenue of 1892-93 from this source. The manufacture of Rosha oil, and the revenue to be derived therefrom, is capable of very considerable development and expansion.

162. Hirdas, the fruit of the Terminalia chebula, the myrobollan of commerce, is a very profitable article of minor forest produce, which is in great commercial demand. The tree grows in the forests of heavy rainfall bordering the ghâts, and the fruit is picked after the Diváli festival in November and December, and is generally brought to forest depôts by villagers, who are paid at a fixed rate by weight or measure of capacity : the fruit is then dried and is stored and finally it is sold by auction or tender to dealers who remove it to Bombay for export to Europe. By dryage or shrinkage considerable loss in bulk and weight occurs.

There are no Hirdas in the Khandesh District, although the tree should grow in the Sátpuda forests ; it is being planted there now. In the Násik

Division the Hirdas in one range were farmed for Rs. 103; and elsewhere they were collected departmentally: and 51 khandis, 24 maunds and 22 lbs.—the khandy being of 784 lbs.—were sold at the deôpts for Rs. 1,412.

In the Ahmednagar Division 11 Hirda Depôts are established in the Hirda region of the Akola Range, the quantity received in them amounted to 62 Deshi, khandis, 17 maunds and 10½ páilis, equal to 154 Bombay khandis and 20 lbs. One Deshi khandi contains 1,920 pounds. The cost of its collection amounted to Rs. 1,182-3-9, and the Hirdas were sold at the rate of Rs. 67-4-0 per Deshi khandi for Rs. 4,236-13-3. The rate was much higher, and the collection was considerably greater than of the two previous years, as will be seen:—

| Year. | Yield. | Cost. | Receipts. | Rate. |
|---|---|---|---|---|
| | Kh. m. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| 1891-92 ... ... ... | 40 17 9 | 851 8 9 | 3,100 0 0 | 73 4 0 |
| 1892-93 ... ... ... | 22 3 6 | 582 11 3 | 997 14 0 | 33 12 0 |
| 1893-94 ... ... ... | 62 17 10½ | 1,182 3 9 | 4,236 13 3 | 67 4 0 |

In the Poona Division, Hirdas were collected on the share system, *i.e.*, the right of collecting Hirdas in each range was put up to auction and the payment was made in kind, *i.e.*, in Hirdas, which were then sold by auction. Hirda trees are to be found in the 5 ghát ranges bordering the Syhádris, *viz.*, Junnar, A'mbegaon, Khed, Mával and Mulshi and in Haveli. The collection and revenue as compared with 1892-93 show as under:—

| Year. | Yield. | Receipts. | Selling rate. |
|---|---|---|---|
| | Kh. m. lbs. | Rs. a. p. | Rs. a. p. |
| 1892-93 ... ... | 169 16 2 | 3,679 1 4 | 21 10 3 |
| 1893-94 ... ... | 174 13 13 | 2,938 0 0 | 16 14 1 |

The khandi here mentioned is the Bombay khandi of 784 lbs.

During the year under report Rs. 11,578-4-9 were spent in collecting 1,347 khandis, 24 maunds and 10 lbs. of Hirdas in the Sátára Division, which were sold for Rs. 22,336-15-3. The loss by dryage or shrinkage on the gross quantity of fruit received at the depôts amounted to 19·4 per cent. The collection this year is a record one, the highest ever known. But the selling rate was very low, being Rs. 18-8-0 per Deshi khandi below that of last year. The results of the two years compare as under:—

| Year. | Crop. | Cost. | Price. | Rate per Khandi. |
|---|---|---|---|---|
| | Kh. m. lbs. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| 1892-93 ... ... ... | 824 16 16 | 6,268 4 11 | 16,945 1 0 | 60 0 0 |
| 1893-94 ... ... ... | 1,347 24 10 | 11,578 4 9 | 22,336 15 3 | 41 8 0 |

There are no Hirda trees in the Sholápur forests save small seedlings which are being artificially cultivated here and there.

163. *Tarwad*, the bark of the Cassia auriculata, a tall shrub with virgate branches, with beautiful yellow flowers, in terminal corymbose, leaf bearing panicles, is sold, as it is used locally for tanning and dying leather, and is in great demand for this purpose. The Tarwad is closely allied to the Senna plant, and is avoided by goats and sheep, and therefore it is grown on forest lands opened to these browsers. The exploitation of the bark is worked on a rotation of five years, and the revenue derived from it during the year of this report amounted to Rs. 1,027-3-9:—

| Division. | Amount. |
|---|---|
| | Rs. a. p. |
| Násik ... ... | 61 0 0 |
| Ahmednagar ... ... | Not sold. |
| Poona ... ... | 839 2 0 |
| Sátára ... ... | 127 1 9 |
| Sholápur ... ... | ..... |
| Total ... | 1,027 3 9 |

164. Shikakái, the pod thick, succulent, strap-shaped, straight, 3—4 inches by $\frac{3}{4}$", depressed between the seeds, of the Acacia concinna, which is in great request by native women for washing the hair, as it is said to be a hair restorer, to remove scurf and to give the hair a soft and beautiful glossy appearance, is sold by auction, to be gathered and removed by the purchaser at his own cost, the bush, which is prickly and scandent, is common in forests of Poona and Sátára near the ghâts, the receipts during the year from this source were :—

| | Amount. Rs. a. p. |
|---|---|
| Násik ... ... ... ... | Nil. |
| Ahmednagar... ... ... ... | do. |
| Poona ... ... ... ... | 277 0 0 |
| Sátára ... ... ... ... | 1,350 0 0 |

Leaves of the Apta (Bauhinia racemosa) and of the Tembhurni (Diospyros melanoxylon), which are made into covers for cigarettes or bidis as they are locally called, are sold by auction and the proceeds amounted to Rs. 734-0-0.

| | Amount. Rs. a. p. |
|---|---|
| Násik ... ... ... | ....734 0 0 |
| Ahmednagar ... ... ... | ... Nil. |
| Poona ... ... ... | ... Nil. |
| Sátára ... ... ... | ... Nil. |

The Apta is the sacred tree of the Dasra festival, when its leaves are given by natives to their friends under the name of Sona (gold).

# CHAPTER III.

## GROSS YIELD AND OUTTURN OF FORESTS PRODUCE.

### I.—DEPARTMENTAL OPERATIONS.

#### (*a*). TIMBER.

165. The outturn in cubic feet, of timber exploited departmentally from the forests of the several divisions of the Central Circle, with the cost incurred and the amount realized by its sale during the forest year under report, compared with the results of the year preceding, is given in the following statement :—

| No. | Division. | 1892-93. | | | 1893-94. | | |
|---|---|---|---|---|---|---|---|
| | | Timber in the rough. | Cost. | Receipts. | Timber in the rough. | Cost. | Receipts. |
| | | C. ft. | Rs. | Rs. | C. ft. | Rs. | Rs. |
| 1 | East Khándesh... ... ... | 18,740 | 1,273 | 10,152 | 16,045 | 1,158 | 12,760 |
| 2 | West Khándesh ... ... | 141,025 | 4,044 | 63,192 | 141,608 | 4,195 | 72,454 |
| 3 | Násik ... ... ... ... | 15,894 | 72 | 1,125 | 11,802 | 115 | 754 |
| 4 | Ahmednagar ... ... ... | 64,514 | 1,215 | 7,873 | 42,705 | 976 | 6,806 |
| 5 | Poona ... ... ... ... | 61,638 | 2,877 | 26,544 | 15,818 | 558 | 3,172 |
| 6 | Sátara ... ... ... ... | 13,545 | 1,154 | 9,058 | 19,132 | 1,470 | 14,084 |
| 7 | Sholápur ... ... ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 315,356 | 10,635 | 1,17,944 | 247,110 | 8,472 | 1,10,030 |

166. Although the forest year 1892-93 embraced a period of 15 months, this prolonged period does not account in any degree for the diminished results of the year of this report, the causes whereof are various, and can best be explained separately for each division.

In the East Khándesh Division the exploitations of the year 1893-94 were only made from reserved forests, whereas during the preceding year fellings of trees on disforested lands contributed to unduly swell the outturn. However, notwithstanding the smaller quantity of timber departmentally extracted the revenue of the year is higher, owing to better prices having been obtained at the auction sales.

In the West Khándesh Division the output of timber exhibits a slight ncrease as compared with that of the previous year, but very high prices ruled the departmental sales, and the receipts are consequently so very much greater.

Departmental operations in the Násik Division were only confined to clearing Dálhi lands, *i.e.*, areas of shifting cultivation by axe and fire of their reserved timber, and are not of sufficient importance to call for any lengthy remarks.

In the Ahmednagar Division the teak trees which were felled were of inferior quality to those of the preceding year, and yielded a smaller quantity of timber of inferior kind, and consequently the receipts are less than of the year before.

In the Poona Division a remarkable falling off both in material and revenue appears, in consequence of the method of selling timber on foot to contractors and purchasers to fell and remove at their own cost, having been substituted largely for departmental operations. The only fellings that were made departmentally in this division were of teak trees standing on occupied lands outside of the forest boundaries in the village of Kohinde Budruk in the Khed Range, which the villagers refused to buy at the prescribed rate of one rupee per tree, and of one of the coupes of the year in the teak forests of the A'mbegaon Range.

The increase in the Sátára Division is due to the extension of provisional Working Plans to several forests which were not being exploited previously. All the forests are being worked departmentally, as the method of selling timber on foot for purchasers to fell and remove has not been attempted yet by the Divisional Forest Officer.

In the Sholápur Division all the timber exploited was sold standing in the forests to be cut and removed by purchasers, and consequently there were no departmental operations.

### (*b*). Firewood and Charcoal.

167. The following statement gives the outturn of firewood, including the loppings of teak (Tectona grandis), Bábool (Acacia arabica) and other trees felled departmentally in the several divisions of the Central Circle, together with the expenditure incurred and the revenue realized, compared with the results of the previous year:—

| No. | Division. | 1892-93. | | | 1893-94. | | |
|---|---|---|---|---|---|---|---|
| | | Firewood. | Cost. | Receipts. | Firewood. | Cost. | Receipts. |
| | | C. ft. | Rs. | Rs. | C. ft. | Rs. | Rs. |
| 1 | East Khándesh... ... ... | 1,022,985 | 6,480 | 29,778 | 602,100 | 3,624 | 15,806 |
| 2 | West Khándesh ... ... | 431,766 | 2,407 | 12,433 | 490,210 | 2,679 | 13,086 |
| 3 | Násik ... ... ... ... | 129,463 | 677 | 3,322 | 55,759 | 250 | 1,412 |
| 4 | Ahmednagar ... ... ... | 111,614 | 18 | 635 | 58,822 | 1 | 604 |
| 5 | Poona ... ... ... ... | 45,365 | 184 | 836 | 42,134 | 220 | 1,150 |
| 6 | Sátára ... ... ... ... | 376,341 | 2,207 | 4,910 | 502,007 | 3,598 | 5,695 |
| 7 | Sholápur ... ... ... | 18,735 | 109 | 2,103 | 2,478 | 14 | 261 |
| | Total ... | 2,136,269 | 12,082 | 54,017 | 1,753,510 | 10,386 | 38,014 |

Extensive clearances were made in the preceding year of disforested lands in the East Khándesh Division, and consequently the operations of the year of this report were confined to 777 acres, being all the disforested areas in the

Chopda Range remaining to be cleared, and hence the heavy drop both in outturn and receipts under this heading.

In the West Khándesh Division the outturn and receipts show a slight increase over those of the preceding year as a larger volume of wood was produced from the coupes.

The yield in the Násik Division is much less than that of the year preceding, owing to the fact that departmental operations are being gradually abandoned in favour of the system of selling the crop on coupes to contractors to be exploited and removed at their own cost.

In the Ahmednagar Division the firewood sold consisted of loppings obtained from the teak (Tectona grandis) and Jámbhul (Eugenia salicifolia) trees felled under "Timber;" and although a smaller quantity of wood was produced, still the receipts are approximately the same as those of last year.

The firewood sales of the Poona Division show a slight decrease in material, but the revenue realized is greater than that of the year preceding.

In the Sátára Division the increase both in stock and revenue is due to the extension of provisional Working Plans to several forests which were not being worked before.

The coupes in the Bábool forests of the Sholápur Division were sold with the timber standing on them to be exploited by purchasers at their own cost; and the only departmental operation that took place during the year was in the Sadar Bazaar Reserve of the Town of Sholápur; and hence the decrease in the quantity of firewood and revenue under departmental operations.

No charcoal is manufactured or sold departmentally.

### (*c*). Ba'mboos.

168. A small operation in Bámboos was undertaken in one division only, West Khándesh, the receipts derived thereby amounted to Rs. 75.

### (*d*). Sandalwood.

169. In the Sholápur Division 8 trees were felled in occupied lands yielding 8 cubic feet of wood which sold for Rs. 8. There is no great number of sandal-wood trees in the forests of the Central Circle.

### (*e*). Grass and Other Minor Produce.

170. Departmental operations are confined almost entirely to the collection and sale of Hirdas, the fruit of the Terminalia chebula, and these have been described already. The crop this year was unusually plentiful, and the price early in the season was high, but it fell very low later on. Sales in the Násik and Ahmednagar Divisions were made when the prices were high, but they had fallen considerably before the Sátára and Poona Hirdás were sold. The gross yield of the year of this report compares with that of 1892-93 thus:—

| | Yield. | Price. |
|---|---|---|
| | K. m. lbs. | Rs. |
| 1892-93 ... ... | 918 1 12 | 18,502 |
| 1893-94 ... .. | 1,553 21 24 | 27,987 |

The only other minor produce collected is 700 cubic feet of Bábool bark stripped from the trees cut for timber and fuel in the Sátára Division. It was sold for a sum of Rs. 16.

## II.—REMOVAL OF PRODUCE BY PURCHASERS.

### (*a*). Timber.

171. The following statement shows the outturn in cubic feet of the timber removed from the forests of the several divisions of the Central Circle

by purchasers at their own expenses, and the amounts realized, compared with the results of the year 1892-93 :—

| No. | Division. | 1892-93. | | 1893-94. | |
|---|---|---|---|---|---|
| | | Timber in the rough. | Amount realized. | Timber in the rough. | Amount realized. |
| | | C. ft. | Rs. | C. ft. | Rs. |
| 1 | East Khándesh ... ... ... | 255,105 | 6,024 | 85,455 | 2,018 |
| 2 | West Khándesh ... ... ... | 158,189 | 17,300 | 158,780 | 18,997 |
| 3 | Násik ... ... ... ... | 567,541 | 30,346 | 1,361,803 | 76,164 |
| 4 | Ahmednagar ... ... ... | ... | 267 | ... | 190 |
| 5 | Poona ... ... ... ... | 1,413 | 1,395 | 220,912 | 22,139 |
| 6 | Sátára ... ... ... ... | 25,023 | 12,341 | 23,237 | 11,678 |
| 7 | Sholápur ... ... ... ... | 302 | 11,155 | 13,026 | 4,570 |
| | Total ... | 1,007,573 | 78,828 | 1,863,213 | 1,35,756 |

172. The forest year 1892-93 embraced a period of 15 months, including two hot seasons, *viz.*, April to June, when the extraction of timber on permits by Bhils from the Sátpuda forests of the East Khándesh Division is in active operation, and for this reason the outturn of and receipts from timber during 1893-94 are less, as it embraces only one hot season. It may be added that the constant and promiscuous exploitations made by the Bhil and Tadvi privilege-holders from the forests of the Sátpudas are making the marketable timbers of all kinds scarce in the more accessible parts of these forests. The timber removed and the receipts derived from it in the West Khándesh Division, show such a slight increase on the figures of the preceding year, as to call for no special remark.

173. The revenue under this heading in the Násik Division is for the most part derived from the Teak (Tectona grandis) trees sold standing for being cut and removed by purchasers upon occupied lands, outside the limits of reserved forests in the Peint Range; and as the number of trees was greater in the group of villages sold during the year, they have yielded more timber; and as the demand was great, and the competition at their sale was very brisk, very much higher prices over those of the previous year were obtained; and hence the receipts have more than doubled.

174. The difference in the Ahmednagar Division where the sales are at all times very trifling, and are made of trees in the Akola Range on protected forests, is not worth considering, and is chiefly due to the fact that the forest year 1892-93 embraced a period of 15 months, against that of 12 months of the current year.

175. In the Poona Division, the method of selling timber on foot in specially marked out coupes, after a reservation of trees required to be seed-bearers and to protect against external dangers had been made, was greatly developed during the year, in connection with the teak and the evergreen forests of the division, in substitution of departmental operations; and to this cause is due mostly the circumstance that the volume of wood exploited under this heading increased from 1,413 cubic feet to 220,912 cubic feet, and the receipts from Rs. 1,395 to Rs. 22,139.

In addition to the coupes a large number of teak trees standing upon occupied lands, outside of the boundaries of reserved forests, were sold to the occupants of survey numbers at the prescribed price of Re. 1 per tree, sanctioned by Government.

176. A very large number of teak trees standing upon occupied lands outside the forest boundaries, was sold to the occupants of survey numbers at the fixed price of Re. 1 per tree, as sanctioned by Government, in the Sátára District likewise, and this accounts for the very large increase in the receipts

derived from timber of that division, although the volume of timber put into the market was slightly less.

177. The coupes of the Sholápur Division forming the main item of revenue under this heading were situated at a considerable distance from the great centres of trade, such as the towns of Sholápur and Bársi, and besides the number and quality of the trees contained in them being less and inferior, the revenue realized shows a great falling off over the figures of the preceding year.

### (*b.*) Firewood.

178. The quantity of firewood removed by purchasers both by sales of Bábool and other firewood coupes in the Násik, Poona, Ahmednagar and Sholápur Divisions, and by issues of permits on payment of fees, together with the revenue realized thereby, is given in the following table :—

| No. | Division. | Firewood in Cubic feet. | | Revenue in Rupees. | |
|---|---|---|---|---|---|
| | | 1892-93. | 1893 94. | 1892-93. | 1893-94. |
| | | | | Rs. | Rs. |
| 1 | East Khándesh ... ... | 1,299,200 | 947,520 | 10,711 | 7,896 |
| 2 | West Khándesh ... ... | 167,900 | 243,150 | 8,542 | 8,641 |
| 3 | Násik ... ... ... | 331,704 | 518,825 | 3,869 | 5,948 |
| 4 | Ahmednagar ... ... | 81,843 | 80,067 | 3,846 | 3,451 |
| 5 | Poona ... ... ... | 184,543 | 287,173 | 8,002 | 9,256 |
| 6 | Sátára ... ... ... | 20,596 | 7,113 | 325 | 153 |
| 7 | Sholápur ... ... | 1,585 | 8,704 | 491 | 214 |
| | Total ... | 2,087,371 | 2,092,552 | 35,786 | 35,559 |

In the Khándesh Divisions the receipts result almost entirely from the fees paid on firewood taken by consumers from the forests on permits; and they fluctuate annually in keeping with the demand for permits.

In the other divisions the receipts are dependent on the sales of coupes. The revenue was very much greater from firewood this year than last.

### (*c.*) Bámboos.

179. The number of Bámboos removed by purchasers from the forests of all the divisions, where there are Bámboo forests, both under contracts and on permits in head-loads, cart-loads, &c., is given in the subjoined table. There are no Bámboo forests in the Sholápur Division :—

| No. | Division. | 1892-93. | | | | 1893-94. | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Cart-loads. | Head-loads. | Number. | Amount realized. | Cart-loads. | Head-loads. | Number. | Amount realized. |
| | | | | | Rs. | | | | Rs. |
| 1 | East Khándesh. ... ... | | | 1,131,212 | 10,122 | ... | ... | 782,564 | 8,160 |
| 2 | West Khándesh ... ... | | | 131,253 | 4,731 | ... | ... | 211,780 | 1,820 |
| 3 | Násik ... ... | 585 | ... | 266,637 | 6,189 | 497 | ... | 122,803 | 3,744 |
| 4 | Ahmednagar ... | ... | ... | 46,578 | 773 | ... | ... | 40,678 | 141 |
| 5 | Poona ... ... | ... | ... | 142,151 | 1,477 | ... | ... | 105,968 | 1,129 |
| 6 | Sátára ... | ... | 9 | 53,416 | 1,110 | ... | ... | 67,403 | 401 |
| | Total... | 585 | 9 | 1,771,247 | 24,402 | 497 | ... | 1,331,196 | 15,395 |

180. There is seemingly a great decline in the number of Bámboos extracted this year as compared with 1892-93, and also in the revenue. But the

decline in the trade is more seeming than real. This year represents the working of 12 months, while 1892-93 embraced a period of 15 months, including two hot weather seasons, the time when the extraction of Bámboos is more active than during other seasons of the year. In the Khándesh Divisions the fee for Bámboos had been reduced, the rates being Rs. 1-8-0 per 100 for Bámboos 5 inches and over in girth, and Re. 0-12-0 per 100 for Bámboos under 5 inches girth instead of Rs. 2-0-0 per 100, Re. 1-0-0 per 100 the former rates.

(*d.*) Grazing and Fodder Grass.

181. The particulars of this source of revenue and supply have been given already.

(*e.*) Other Minor Produce.

182. The following table shows the realizations from "minor forest produce", including Hirda (Terminalia chebula), stones, earth, thorns, fruits, Rosha oil (Andropogan schœnanthus), Karvi, Tarwad bark (Casia auriculata), Tembhurni and Apta leaves &c. &c., removed from the forests by purchasers compared with the results of the previous year 1892-93 :—

| No. | Division. | Amount, 1892-93. | Amount, 1893-94. |
|---|---|---|---|
| | | Rs. | Rs. |
| 1 | East Khándesh ... ... | 1,665 | 1,470 |
| 2 | West Khándesh ... ... | 15,785 | 17,487 |
| 3 | Násik ... ... ... | 1,774 | 3,636 |
| 4 | Ahmednagar ... ... | 1,479 | 1,222 |
| 5 | Poona ... ... ... | 4,634 | 4,247 |
| 6 | Sátára ... ... ... | 3,045 | 2,342 |
| 7 | Sholápur ... ... | 67 | 226 |
| | Total ... | 28,449 | 30,630 |

Unusually high prices were paid for the Rosha oil grass contracts in the West Khándesh Division and hence the increase.

## III.—FREE GRANTS OF FOREST PRODUCE.

183. The following is a comparative statement of free grants of timber which have been made by Revenue officers in every case during the last three years :—

| No | Division. | 1890-91. | 1891-92. | 1892-93. | 1893-94. |
|---|---|---|---|---|---|
| 1 | East Khándesh ... ... | ... | 210 | ... | ... |
| 2 | West Khándesh ... ... | 142 | 714 | 458 | 1,518 |
| 3 | Násik ... ... ... | 217 | 177 | 274 | 369 |
| 4 | Ahmednagar ... ... | 10 | 139 | ... | 20 |
| 5 | Poona ... ... ... | 519 | 709 | 628 | 684 |
| 6 | Sátára ... ... ... | 699 | ... | 136 | 43 |
| 7 | Sholápur ... ... ... | ... | ... | ... | ... |
| | Total ... | 1,587 | 1,949 | 1,496 | 2,634 |

The increase in free grants has been in West Khándesh.

## IV.—PRODUCE REMOVED BY RIGHT-HOLDERS AND UNDER PRIVILEGES.

184. The removals of timber and other forest produce by right-holders and concessionaries under the privileges granted to them are not confined to any

particular forests or portions of forests, and to any prescribed season, nor they are regulated by a system of permits or passes, and consequently it is impossible to give any approximately correct estimate of their value. It will only be sufficient to state here that the quantities of timber, firewood, grass and other minor produce removed from the forests by the wild tribes for private consumption and for barter or sale are very large.

185. The free grazing which has been allowed in the reserved forests as a privilege to agricultural and milch cattle has been controlled by issue of free grazing permits; and the subjoined statement shows the number of cattle that were allowed to graze free and the value of the grazing enjoyed by them, compared with the results of the year preceding :—

| Number. | Division. | Number of Cattle. | | Value of Grazing. | |
|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| | | | | Rs. | Rs. |
| 1 | East Khándesh ... ... | 8,898 | 10,676 | 2,587 | 5,777 |
| 2 | West Khándesh ... ... | 24,862 | 23,586 | 5,574 | 6,476 |
| 3 | Násik ... ... ... | 49,552 | 54,385 | 13,541 | 28,808 |
| 4 | Ahmednagar ... ... | 9,093 | 16,379 | 3,264 | 3,247 |
| 5 | Poona ... ... ... | 105,188 | 94,356 | 24,066 | 52,990 |
| 6 | Sátára ... ... ... | 290,419 | 155,695 | 75,023 | 77,848 |
| 7 | Sholápur ... ... ... | 11,383 | 8,900 | 2,416 | 2,473 |
| | Total ... | 499,395 | 363,977 | 1,26,471 | 1,77,619 |

186. The number of cattle free grazed in the forests has increased considerably in the East Khándesh, Násik and Ahmednagar Divisions, but on the other hand there is a considerably larger decrease in numbers entered for free grazing in the Sátára, Poona, Sholápur and West Khándesh Divisions. In the Sátára District the difference is very remarkable as it amounts to no less than 134,724 and in Poona 10,832 fewer animals were free grazed; this seemingly shows that greater attention was paid by the village officers to the differentiation of cattle between the privileged and the paying.

## V.—SUMMARY OF PRODUCE REMOVED FROM THE FORESTS.

187. The following is a summary of produce removed from the forest:—

| Description of material. | | Number or quantity. |
|---|---|---|
| Timber... ... ... ... | ... Cubic feet ... | 2,133,848 |
| Fuel ... ... ... ... | ... Do. ... | 3,847,186 |
| Bámboos ... ... ... | ... Cart-loads ... | 497 |
| Do. ... ... ... | ... Number ... | 1,331,196 |
| Stones ... ... ... ... | ... Cart-loads ... | 15,552 |
| Do. ... ... ... ... | ... Cubic feet ... | 249,062 |
| Thorns and brushwood ... ... | ... Cart-loads ... | 23,043 |
| Do. ... ... | ... Head-loads ... | 3,891 |
| Manure ... ... ... | ... Cart-loads ... | 1,869 |
| Anjan and other leaves ... ... | ... Do. ... | 591 |
| Do. ... ... | ... Head-loads ... | 716 |
| Earth ... ... ... ... | ... Cart-loads ... | 2,148 |
| Do. ... ... ... ... | ... Cubic feet ... | 405 |
| Karvi ... ... ... ... | ... Cart-loads ... | 393 |
| Do. ... ... ... ... | ... Head-loads ... | 12,949 |
| Reeds ... ... ... ... | ... Cart-loads ... | 1,424 |
| Do. ... ... ... ... | ... Head-loads ... | 172 |
| Sand ... ... ... ... | ... Cubic feet ... | 60,250 |
| Limestones ... ... ... | ... Cart-loads ... | 236 |
| Aloe ... ... ... ... | ... Head-loads ... | 70 |
| Bábool bark ... ... ... | ... Cubic feet ... | 700 |
| | | Kh. m. lbs. |
| Hirda ... ... ... ... | ... Do. ... | 1,697 3 23 |

# CHAPTER IV.

## FINANCIAL RESULTS.

188. The following statement exhibits a comparison of the financial results of the year under report with those of the year preceding :—

| Year. | Receipts. | Expenditure. | | | Surplus. |
|---|---|---|---|---|---|
| | | A Conservancy and Works. | B Establishments. | Total. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1892-93 ... ... | 8,23,495 | 1,60,625 | 4,27,367 | 5,87,992 | 2,35,503 |
| 1893-94 ... ... | 8,14,169 | 1,49,466 | 3,63,664 | 5,13,130 | 3,01,039 |
| Increase ... ... | ... | ... | ... | ... | 65,536 |
| Decrease ... ... | 9,326 | 11,159 | 63,703 | 74,862 | ... |

189. The figures of 1892-93 cover a period of 15 months, *viz.*, from 1st April 1892 to 30th June 1893, while the figures of 1893-94 are of 12 months only, *viz.*, from 1st July 1893 to 30th June 1894; and when this fact is taken into consideration, it will be realised that although the receipts of the year of this report are Rs. 9,326 less than the preceding year, still they indicate an augmenting revenue: during the 3 additional months of 1892-93 the receipts collected amounted to Rs. 71,708, so that there has been a clear rise in the revenue of over Rs. 60,000 during 1893-94.

190. The financial results of the 12 months are very satisfactory: the surplus revenue shows an increase of Rs. 65,536 on the net results of 1892-93, but these figures do not present a correct deduction, because the expenditure in the three additional months of 1892-93 amounted to Rs. 1,05,513 and was greater than the revenue of these months by Rs. 33,805.

191. The financial results of the Central Circle for the two *Financial years* 1892-93 *and* 1893-94 show as under :—

| Year. | Receipts. | Expenditure. | Surplus. |
|---|---|---|---|
| | Rs. | Rs. | Rs. |
| 1892-93 ... ... | 7,51,787 | 4,82,479 | 2,69,308 |
| 1893-94 ... ... | 8,18,189 | 5,03,230 | 3,14,959 |

192. But it should be remembered that grass of the value of Rs. 29,297 is given to the Commissariat Department free of charge, *viz.*, Rs. 24,000 worth in the Poona Division and Rs. 5,297 in the Ahmednagar Division, and if this sum be added to the surplus revenue, and if the value of the free grazing given to cattle in the forests during the year which is computed at Rs. 1,77,619 be also added, it will be seen that the forest management of the Circle is more remunerative than the financial returns show.

193. The distribution of receipts among the several divisons of the Central Circle for the year 1892-93 and 1893-94 is given below :—

| Number. | Division. | 1892-93. | 1893-94. | Increase. | Decrease. |
|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. |
| 1 | Direction ... ... ... | 2 | 23 | 21 | ... |
| 2 | East Khándesh ... ... | 1,67,237 | 1,37,999 | ... | 29,238 |
| 3 | West Khándesh ... ... | 2,55,787 | 2,59,353 | 3,566 | ... |
| 4 | Násik ... ... ... | 1,14,960 | 1,49,607 | 34,647 | ... |
| 5 | Ahmednagar ... ... | 61,256 | 59,589 | ... | 1,667 |
| 6 | Poona ... ... ... | 96,613 | 87,687 | ... | 8,926 |
| 7 | Sátára ... ... ... | 87,787 | 86,860 | ... | 927 |
| 8 | Sholápur ... ... ... | 39,853 | 33,051 | ... | 6,802 |
| | Total ... | 8,23,495 | 8,14,169 | 38,234 | 47,560 |

194. The decrease of Rs. 29,238 in the East Khándesh Division was partly due to the fact that the figures of the preceding year representing the results of 15 months comprised two hot seasons, *i. e.*, April, May and June, the time when the import trade in timber on which duty is levied as well as exploitations on permits from the Sátpuda forests are heavier and brisker than during other months of the year, and it is partly owing to the unusally large quantity of firewood which was sold during 1892-93, through clear fellings made upon 3,580 acres of disforested lands which had to be cleared of their tree-growth for cultivation during 1893-94, on the other hand, only 777 acres of disforested lands in the Chopda Range were cleared of trees, and the large quantity of firewood sold in the former year affected the rates of 1893-94, so that the receipts under I (*b*) amounted to Rs. 15,805 against Rs. 29,778 in the year before. There were, however, increases under I (*a*) and II (*d*) of Rs. 2,608 and Rs. 2,010 respectively, the former owing to higher prices for teakwood, and the latter to increased revenue from grass and grazing, but they were not sufficient to counterbalance the decrease.

195. The receipts of the West Khándesh and Násik exhibit an increase of Rs. 3,566 and 34,647 respectively, notwithstanding that the year is shorter by a period of 3 months than of its predecessor. The results are due in the west Khándesh Division to increased revenue from timber and firewood owing to higher prices realised at the auction sales, and also to large realizations from Rosha grass contracts; and in the Násik Division to the exceptionally great demand for teak trees standing upon revenue lands in the Peint Táluka, which have been sold for clear felling, at exceptionally high prices, the revenue under II (*a*) being Rs. 76,163 against Rs. 30,345 during 1892-93. There are, however, small decreases in the Divisions of Ahmednagar, Poona, Sátára and Sholápur, which are accountable by one year containing 3 months more than the other.

196. The receipts of the 7 divisions comprising the Central Circle for the 4 years of the current decennial period have fluctuated as shown in the following table; the figures of the official or financial year are given :—

| Number. | Division. | 1890-91. | 1891-92. | 1892-93. | 1893-94. |
|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. |
| 1 | East Khándesh ... ... | 1,17,334 | 1,50,811 | 1,50,163 | 1,40,883 |
| 2 | West Khándesh ... ... | 1,64,872 | 2,02,942 | 2,19,002 | 2,54,382 |
| 3 | Násik ... ... ... | 90,998 | 1,22,514 | 1,11,144 | 1,50,378 |
| 4 | Ahmednagar ... ... | 55,413 | 57,410 | 56,115 | 63,387 |
| 5 | Poona ... ... ... | 99,198 | 95,189 | 94,476 | 85,923 |
| 6 | Sátára ... ... ... | 70,664 | 88,642 | 82,632 | 88,822 |
| 7 | Sholápur ... ... ... | 21,613 | 30,641 | 38,255 | 34,414 |
| | Total ... | 6,20,092 | 7,48,149 | 7,51,787 | 8,18,189 |

197. The distribution of expenditure under "A. Conservancy and Works" among the several divisions of the Central Circle, during the year 1892-93 and 1893-94, is exhibited in the following table :—

| No. | Division. | 1892-93. | 1893-94. | Increase. | Decrease. |
|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. |
| 1 | Direction ... ... ... | 3,338 | 250 | ... | 3,088 |
| 2 | East Khándesh ... ... | 19,021 | 15,246 | ... | 3,775 |
| 3 | West Khándesh ... ... | 28,626 | 26,595 | ... | 2,031 |
| 4 | Násik ... ... ... | 15,306 | 18,985 | 3,679 | ... |
| 5 | Ahmednagar ... ... | 13,818 | 15,611 | 1,793 | ... |
| 6 | Poona ... ... ... | 48,563 | 33,155 | ... | 15,408 |
| 7 | Sátára ... ... ... | 22,920 | 30,558 | 7,638 | ... |
| 8 | Sholápur ... ... ... | 9,033 | 8,046 | ... | 987 |
| 9 | Working Plans ... ... | ... | 1,020 | 1,020 | ... |
| | Total ... | 1,60,625 | 1,49,466 | 14,130 | 25,289 |

198. The decrease of Rs. 3,088 under direction is due to the fact that the cost of maps and of sending specimens of timber, &c., to Chicago Exhibition was adjusted in the accounts of the Conservator, last year, while no such charges were incurred during the year. The decrease of Rs. 3,775 in the East Khándesh Division is due to the smaller tree-divesting operation under I (*b*) as already explained under receipts. The small decrease of Rs. 2,031 in the West Khándesh Division is to be accounted for by the fact that the expenditure during 1892-93 included the charges for 15 months and also to smaller expenditure having been incurred than provided for under "Plantations" and "Protection from fire." There is, however, an increase of Rs. 3,679 in the Násik Division and the increased receipts under II (*a*) more than counterbalance the increased expenditure under A II, in connection with the extensive clear fellings of teak trees in revenue lands; and under A VIII (*a*) on account of the demarcation work on a larger scale in the Peint Táluka which was carried on with additional vigour to serve as a relief work, owing to some scarcity prevailing in the Peint villages. The increase of Rs. 1,793 in the Ahmednagar Division is owing to the debit of forest survey charges Rs. 4,774, while there was no such debit last year, and had it not been for this charge, the expenditure would have been less than during 1892-93 as in other divisions. The Poona Division exhibits a decrease of Rs. 15,408 which is due to the abandonment of the departmental system of felling and exploiting timber in favour of sales on foot, by which all expenses are borne by purchasers, and also to the fact that no money was spent in payment of compensation for lands or rights, and that the work of erecting special forest boundary marks was not carried out on such an extended scale as had been provided for, owing to much sickness among the executive officers of ranges. The increase of Rs. 7,638 against the Sátára Division is mainly due to much larger purchase of Hirdas (Terminalia chebula) at the forest depôts than had been anticipated as the crop of the year was a record breaker, but the increased receipts under I *e* more than cover this extra cost. The decrease against the Sholápur Division is owing to the difference of 3 months and calls for no remarks. The increase of Rs. 1,020 against the Working Plans Division is solely due to the fact that there was no expenditure under this head during 1892-93, while this amount represents the cost of the Working Plans field establishment, while Mr. Fry, Divisional Forest Officer, Working Plans, belonging to the Northern Circle, worked in the Central Circle for a short period of the year.

199. The expenditure under A. Conservancy and Works of the divisions of the Central Circle for the four *financial years* of the current decennial period have varied as under :—

| No. | Division. | 1890-91. | 1891-92. | 1892-93. | 1893-94. |
|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. |
| 1 | East Khándesh ... ... | 11,487 | 16,578 | 18,454 | 14,618 |
| 2 | West Khándesh ... ... | 22,920 | 22,997 | 25,426 | 26,714 |
| 3 | Násik ... ... ... | 10,619 | 15,995 | 12,538 | 16,641 |
| 4 | Ahmednagar ... ... | 14,254 | 13,330 | 12,790 | 15,980 |
| 5 | Poona ... ... ... | 44,851 | 37,901 | 40,536 | 34,921 |
| 6 | Sátára ... ... ... | 16,659 | 18,276 | 20,135 | 31,683 |
| 7 | Sholápur ... ... ... | 5,639 | 6,807 | 8,153 | 8,739 |
| | Total ... | 1,26,429 | 1,31,884 | 1,38,032 | 1,49,296 |

200. Under B. Establishments the charges are regularly incurred according to the sanctioned scale, and the decrease of Rs. 63,703 is solely due to the additional cost of salaries and allowances during the 3 months of 1892-93 debited in that year. No detailed explanations are required of the expenditure under this major heading.

201. The expenditure under B. Establishments of the divisions included in the Circle has been returned as under during the four *financial years* of the current decennial period :—

| No. | Division. | 1890-91. | 1891-92. | 1892-93. | 1893-94. |
|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. |
| 1 | East Khándesh ... ... | 45,208 | 45,881 | 43,935 | 41,902 |
| 2 | West Khándesh ... ... | 45,523 | 43,257 | 47,212 | 46,642 |
| 3 | Násik ... ... ... | 56,734 | 57,892 | 62,515 | 65,176 |
| 4 | Ahmednagar ... ... | 41,469 | 40,421 | 37,674 | 43,712 |
| 5 | Poona ... ... ... | 60,956 | 65,439 | 66,598 | 71,753 |
| 6 | Sátára ... ... ... | 52,615 | 50,139 | 56,092 | 54,993 |
| 7 | Sholápur ... ... ... | 26,974 | 26,440 | 30,421 | 29,756 |
| | Total ... | 3,29,479 | 3,29,469 | 3,44,447 | 3,53,934 |

202. And the surplus revenues of the divisions for the same four years which run respectively from 1st April to 31st March appear as under :—

| No. | Division. | 1890-91. | 1891-92. | 1892-93. | 1893-94. |
|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. |
| 1 | East Khándesh ... ... | 60,639 | 88,352 | 87,774 | 84,363 |
| 2 | West Khándesh ... ... | 96,429 | 1,36,688 | 1,46,364 | 1,81,026 |
| 3 | Násik ... ... ... | 23,645 | 48,627 | 36,091 | 68,561 |
| 4 | Ahmednagar ... ... | —310 | 3,659 | 5,651 | 3,695 |
| 5 | Poona ... ... ... | —6,609 | —8,151 | —12,658 | —20,751 |
| 6 | Sátára ... ... ... | 1,390 | 20,227 | 6,405 | 2,146 |
| 7 | Sholápur ... ... ... | —11,000 | —2,606 | —319 | —4,081 |
| | Total ... | 1,64,184 | 2,86,796 | 2,69,308 | 3,14,959 |

203. It is directed in paragraph 27 of Government Resolution No. 5385, dated 23rd June 1894, in the Revenue Department, that the receipts, expenditure and the net revenue of the past ten years should be shown for the Circle as it is now constituted in the report of 1893-94, consequently the following table is given, but in order that each year may show an equal number of months and its

figures may be for the same period of time, so that an equal comparison may be obtained, the financial results of the official year, *i. e.*, from 1st April of one to the 31st March of the next year, are given in the statement in block type below the figures of the two last years :—

| Year. | Receipts. | Expenditure. | Net Revenue. |
|---|---|---|---|
| | Rs. | Rs. | Rs. |
| 1883-84 ... ... ... | 4,70,219 | 3,35,287 | 1,34,932 |
| 1884-85 ... ... ... | 5,10,168 | 4,19,002 | 91,196 |
| 1885-86 ... ... ... | 5,11,379 | 4,32,600 | 78,779 |
| 1886-87 ... ... ... | 4,69,935 | 4,25,815 | 44,120 |
| 1887-88 ... ... ... | 4,95,425 | 6,52,617 | 42,808 |
| 1888-89 ... ... ... | 5,82,238 | 4,56,619 | 1,25,619 |
| 1889-90 ... ... ... | 5,89,455 | 4,33,181 | 1,56,274 |
| 1890-91 ... ... ... | 6,20,092 | 4,55,908 | 1,64,184 |
| 1891-92 ... ... ... | 7,48,149 | 4,61,353 | 2,86,796 |
| 1892-93 ... ... ... | 8,23,495 | 5,87,992 | 2,35,503 |
| | **7,51,787** | **4,82,479** | **2,69,308** |
| 1893-94 ... ... ... | 8,14,169 | 5,13,130 | 3,01,039 |
| | **8,18,189** | **5,03,230** | **3,14,959** |

204. It will be seen from the above figures that the net revenue of the forest year of this report is the highest ever obtained, and is a record surplus.

205. The figures of expenditure given above include the proportional cost of direction for each of the first nine years of the series and not the total cost thereof, because anterior to 1892-93 the Thána, Surat and Panch Maháls Divisions were under the same direction and their proportional share of the cost for the nine years 1883-84 to 1891-92 inclusive, has been deducted.

# CHAPTER V.

## FOREST ADMINISTRATION.

206. The forest administration of the Central Circle has, during the year, been conducted on the lines laid down in Government Resolution No. 7107, dated 6th September 1892, in the Revenue Department, which may be described briefly as making the Forest Department subordinate to the Revenue Department, on the grounds that as forest administration is a branch of the general administration of the country, and as the Commissioner of the division is, under the provisions of the Land Revenue Code, Bombay Act No. V of 1879, the head of the general administration of his division, in direct subordination to Government, therefore he is head of the forest administration in his division, and consequently the Conservator of Forests, who is the head of the Forest Department in the Circle, is directly subordinate to the Commissioner in all matters of general administration. In the same way, as the Collector is the head of the general administration of his district under the Commissioner of the division to which the district belongs, therefore the principal Forest officer of the district, designated the Divisinal Forest Officer, is directly subordinate to the Collector in all matters concerning the general administration of the forests of the district. But in technical matters, the Divisional Forest Officer is directly subordinate to the Conservator of his Circle, and in regard of questions of accounts, establishments and leave, &c., the Conservator has still the privilege of addressing Government direct.

207. The principle governing the arrangement of placing the local Forest Department under the local Revenue Department is undoubtedly a sound one, for it gives strength to the forest administration as the experience of the year of this report has abundantly proved: the Collector being directly responsible for the forest administration in his district, and every detail of forest management being carried out, only with his full knowledge, approval and support: and

with the Commissioner in the back ground to hold the balance evenly between the two departments when conflicting opinions may arise, and to give the final order, and to see that the forest interests of Government receive their proper recognition: the forest administration has acquired a power it certainly lacked before.

208. Where to draw the line of demarcation between general administration and technical matters may sometimes be an intricate consideration, but it must be left mainly to the good sense of local officers to decide to whom the greater responsibility attaches on a particular question, and where lies naturally the greater; and it may be the special, knowledge.

209. There is some incongruity in the designations of forest officers, and the old style of calling the principal forest officer of a district "the district forest officer," and the principal forest officer of the revenue division "the Conservator of the division," instead of "the Divisional Forest Officer" and "the Conservator of the Circle" gives titles seemingly more appropriate to the existing relation of forest administration to the general administration of the country.

210. The rules prescribing the channels of communication are somewhat overstrained in their practical application to the transmission of papers, and a little relaxation on some points would promote the despatch of business, decrease avoidable work and cost in correspondence, without impairing the desired subordination of the Forest to the Revenue Department.

211. The constitution of the Circle has remained unchanged through the year.

## ESTABLISHMENT AND THEIR RECRUITMENT.

212. The administrative staff of the department for directing and controlling operations consisted at the close of the year of one Conservator of Forests, 1st Grade, and 8 Divisional Forest officers who are either Deputy or Assistant or Extra Assistant Conservators of Forests of different grades, according to their respective ranks in the Indian Forest Service, or in the Provincial Branch of that service: and there were also 4 Sub-division Forest Officers of the rank of Assistant and Extra Assistant Conservator, attached to the divisions of West Khándesh, Násik, Poona and Sátára. One officer of the Indian Forest Service of the rank of Deputy Conservator has also been attached to the College of Science, Poona, as Professor of Forestry, and belongs in departmental matters to the Central Circle.

213. The following list shows the ranks and grades of the superior Forest officers who were attached to the Central Circle on the 30th June 1894:—

| No. | Rank. | Grade. | Rate of pay. |
|---|---|---|---|
| | | | Rs. |
| 1 | Conservator ... ... ... ... | 1st Grade ... | 1,600 |
| 1 | Deputy Conservator ... ... ... | 2nd do. ... | 800 |
| 3 | Deputy Conservators ... ... ... | 3rd do. ... | 650 |
| 2 | Do. ... ... ... | 4th do. ... | 550 |
| 2 | Assistant Conservators ... ... ... | 1st do. ... | 450 |
| 1 | Assistant Conservator ... ... ... | 2nd do. ... | 350 |
| 10 | Total Imperial. | | |
| 2 | Extra Assistant Conservators ... ... | 1st do. ... | 350 |
| 1 | Extra Assistant Conservator ... ... | 3rd do. ... | 250 |
| 3 | Total Provincial. | | |

214. No. changes have occurred in the sanctioned strength and cost of the subordinate district establishments of the Central Circle, both permanent and temporary, and their distribution among the several divisions of the Circle is exhibited in the following statements:—

*Permanent Establishment.*

| No. | Division. | Number of Ranges. | Range Forest Officers. | | | | | | | Forest Guards. | | | | | | Total monthly cost. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Rangers. | | | | Foresters. | | | | | | | | | | |
| | | | Rs. 100 | Rs. 80 | Rs. 60 | Rs. 50 | Rs. 40 | Rs. 30 | Rs. 20 | Rs. 15 | Rs. 12 | Rs. 10 | Rs. 9 | Rs. 8 | Rs. 7 | | |
| | | | | | | | | | | | | | | | | Rs. | |
| 1 | East Khándesh ... | 13 | | | | | | | | 8 | 16 | 20 | 20 | 40 | 75 | | The pay of Rangers and Foresters is personal, and they are liable to be transferred from one range to another as the exigencies of the service may require; consequently the number of appointments in each grade is shown in lump for the whole Circle. |
| 2 | West Khándesh... | 10 | | | | | | | | 7 | 14 | 18 | 18 | 50 | 102 | | |
| 3 | Násik ... ... | 14 | | | | | | | | 10 | 20 | 25 | 26 | 50 | 168 | | |
| 4 | Ahmednagar ... | 11 | 1 | 3 | 5 | 7 | 17 | 25 | 22 | 6 | 12 | 22 | 22 | 50 | 85 | 15,159 | |
| 5 | Poona ... ... | 11 | | | | | | | | 9 | 17 | 26 | 25 | 60 | 120 | | |
| 6 | Sátára ... ... | 14 | | | | | | | | 9 | 18 | 24 | 22 | 57 | 102 | | |
| 7 | Sholápur ... ... | 7 | | | | | | | | 3 | 6 | 11 | 8 | 16 | 68 | | |
| | Total ... | 80 | 1 | 3 | 5 | 7 | 17 | 25 | 22 | 52 | 103 | 146 | 141 | 323 | 710 | 15,159 | |

*Temporary Establishment.*

| No. | Division. | Forest Guards. | | Total monthly cost. | Remarks. |
|---|---|---|---|---|---|
| | | Rs. 8. | Rs. 7. | | |
| | | | | Rs. | |
| 1 | Násik ... ... | 3 | 3 | 45 | The temporary establishment of Forest Guards has been sanctioned for these two divisions of the Central Circle only. |
| 2 | Poona ... ... | 15 | 30 | 330 | |
| | Total ... | 18 | 33 | 375 | |

215. The strength and cost of the office establishment of the Central Circle has undergone no change during the year, but the transfer of 3 clerks and 2 peons from the office of the Conservator of Forests, Central Circle, to that of the Deputy Conservator of Forests in charge of the Northern Circle, which was made last year, has somewhat crippled the Central Circle.

The following statement shows the existing staff and its distribution among the several divisions of the Circle :—

| No. | Division. | Number and Gradation. | | | | | | | | | | Total monthly cost. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Clerks. | | | | | | | Peons. | | | | |
| | | Rs. 100. | Rs. 80. | Rs. 50. | Rs. 40. | Rs. 30. | Rs. 20. | Rs. 15. | Rs. 10. | Rs. 9. | Rs. 8. | | |
| | | | | | | | | | | | | Rs. | |
| 1 | Direction ... | 1 | 1 | 2 | 1 | 1 | 2 | ... | 1 | 1 | 3 | 433 | |
| 2 | East Khándesh . | ... | ... | 1 | ... | 1 | 2 | 2 | ... | 1 | 3 | 183 | |
| 3 | West Khándesh. | ... | ... | 1 | ... | 1 | 2 | 3 | ... | 1 | 5 | 214 | |
| 4 | Násik ... ... | ... | ... | 1 | ... | 1 | 2 | 2 | ... | 1 | 3 | 183 | |
| 5 | Ahmednagar ... | ... | ... | ... | 1 | 1 | 2 | 2 | ... | 1 | 3 | 173 | |
| 6 | Poona ... ... | ... | ... | 1 | ... | 1 | 2 | 3 | ... | 1 | 5 | 214 | |
| 7 | Sátára ... ... | ... | ... | 1 | ... | 1 | 2 | 3 | ... | 1 | 5 | 214 | |
| 8 | Sholápur ... | ... | ... | ... | 1 | 1 | 2 | 1 | ... | 1 | 3 | 158 | |
| | Total ... | 1 | 1 | 7 | 3 | 8 | 16 | 16 | 1 | 8 | 30 | 1,772 | |

216. In addition to this permanent establishment a temporary establishment consisting of one clerk on Rs. 15 and two peons at Rs. 8 each per mensem was in entertainment in the Násik Division, as in the year before, for duty under the sub-division officer there, who has no permanent establishment sanctioned for his office.

217. The inadequacy of both protective and office establishments has long been felt, and schemes for reorganizing them have already been submitted to Government, but the question has not yet been finally disposed of, as Government have in their Resolution No. 6702, dated 15th September 1893, in the Revenue Department, called for certain further details before passing final orders.

218. The East Khándesh Division was in charge of Mr. R. H. Mádan, Extra Assistant Conservator of Forests, 1st Grade, throughout the year, who administreted his division efficiently. The conduct of the subordinate establishments in the Chopda, Yával and Sávda Ranges was very unsatisfactory, and inquiries were still progressing, when the year closed, in respect of certain allegations of fraud and dishonesty, which had been brought to Mr. Mádan's notice in the levying of permit fees on Bámboos, and of fees on passes issued under the rules of Section 41 of the Forest Act, and in the payment into the Treasuries of the collected fees. 2 round guards, 3 forest depôt officers and 15 forest guards and peons were dismissed the service during the year. The Collector in forwarding the report states " Mr. Mádan has had a trying year of it. But he appears to have worked well and successfully."

219. The management of the West Khándesh Division was under Messrs. Oliver and Keys from 1st July 1893 to 15th November 1893, and from 16th November to end of June 1894, respectively. Both officers have discharged their duties satisfactorily. Mr. Keys has suffered much in health from jungle fever, but nevertheless he has taken a keen interest in his work, and has moved over his wide division actively and his record is good. The Collector in forwarding the report remarks, " the financial returns of the Western Division are excellent and counterbalance the year's falling off in the eastern half of the district, and Mr. Keys is to be congratulated on the successful results of his year's work." Mr. B. H. Dalál was the sub-division officer from the beginning of the year to 10th April 1894, when his services were transferred to the Sind Circle much to the regret of the Conservator and of his Divisional Forest Officer. The Collector also remarked that Mr. Dalál in his forest work was " as keen as mustard." Mr. V. G. Tumne, who has succeeded him, is reported by Mr. Keys as promising to prove an efficient substitute.

220. Mr. W. G. Betham was the Divisional Forest Officer of Násik from 1st July 1893 to 13th April 1894, when he proceeded on three months' privilege leave, handing over charge of his duties to Mr. L. S. Osmaston, who held the division until relieved by Mr. Dasai on the 2nd May 1894, and who continued as Divisional Forest Officer till the close of the year. The forest administration has been well looked after by the three officers who held the reins during different periods. The sub-division office was in charge of Messrs. W. R. Gaunde, V. G. Tumne, L. D. Joshi and V. M. Tilak at different times, and all of them are reported to have worked well. It has been found necessary to dismiss only one forest guard of the Kalvan Range. The year was more unhealthy than the preceding one, the number of deaths of members of the establishment being 9 against 2 during 1892-93.

221. Mr. S. Hornidge has been Divisional Forest Officer of Ahmednagar throughout the year, and has worked satisfactorily. One round guard and 9 beat guards were dismissed the service for neglect of duty, absenting themselves without leave, &c.; there were two deaths in the staff against one in the year before.

222. The Poona Division has had Mr. A. D. Wilkins at its head throughout the year, and his administration of it has been good. The sub-division office was in charge of Messrs. L. D. Joshi, J. H. Clabby and V. M. Tilak, and they are reported to have worked hard and well. The Conservator regrets to have to mention the sudden death of Mr. L. D. Joshi, on the 19th June 1894, from heart disease. Mr. Joshi had served Government honestly and conscientiously for over 24 years. The year was exceptionally unhealthy in the Poona Division, and many subordinates were compelled to leave their duties on sick leave. Every clerk in the Divisional Office was prostrated with fever at the same time, and they were all absent in hospitals and under medical treatment

from 4 to 6 weeks all together. 17 forest guards had to be dismissed the service, and 7 to be reduced for misconduct and irregularities. The Khed Range was in a state of disorganization owing to the misconduct of the Range Forest Officer. There were several charges against him which were being inquired into at the close of the year.

223. Mr. R. S. F. Fagan had the management of the Sátára Division throughout the year, and has worked with great industry and zeal. The Collector, Mr. Rand, in forwarding the report, writes: "During the short time that he has acted as Collector, the undersigned has been quite satisfied with Mr. Fagan's work." Mr. G. S. Hinge was the Sub-division Officer, and is reported to have proved himself to be a valuable assistant to the Divisional Forest Officer. During the year 2 subordinates retired on pension, 7 died, 1 resigned and 7 were dismissed the service. One round guard was prosecuted for stealing timber from the forests and was convicted and sentenced to 2 months' imprisonment.

224. The management of the Sholápur Division was in the hands of four different officers during the year, *viz.*, Messrs. J. H. Clabby, E. G. Oliver, W. R. Gaunde, and C. M. Hodgson, the lastnamed officer having taken charge only on the 13th of June 1894. The Collector has remarked: "There have been several changes of Divisional Forest Officer during the year and Mr. Oliver had just learnt the district when he was transferred. I hope Mr. Hodgson will be left here during the whole of the coming season." Two forest guards resigned the service, one died of fever, and six were dismissed the service for culpable neglect of duty and misconduct.

225. Mr. L. S. Osmaston has been attached to the Central Circle for duty on Working Plans from the month of December 1893, and has organized his office and been busily employed inspecting exploited compartments, closed for reproduction and coupes under exploitation and in gathering knowledge and collecting information preliminary to the formation of Working Plans.

226. Of the subordinate protective establishment the names of the following range forest officers have been brought prominently to notice by their Divisional Forest Officers:—Aminodin Aliodin, Sarfrazkhan Inayatkhan, and Tukaram Lalaji in East Khándesh, Husnodin Gulam Husen and Rahimatkhan Maktumkhan in West Khándesh, Vishnu Mahadeo Tilak and Sadashive Vishnu Harshe in the Poona Division and Balkrishna Balwant Parasnis in the Sátára Division.

227. Of the office establishment, the following clerks deserve special mention. Keshav Ganesh Vaidya, Madhavrao Narayen Gokhale, Krishnaji Vyankatesh Lohokare, Balkrishna Gopal Kher, Govind Lakshman Patankar, Tukaram Vithoba Sonar, Trimbak Govind Mahajan, Gangadhar Chintaman Kale and Vishnu Anant Bapat.

## FOREST INSTRUCTION, &c.

228. The Principal of the College of Science, Poona, states in reference to the forest classes attached to the College that there are at present 28 students on the roll in this branch, 3 more than last year. The Conservator of Forests, Central Circle, sent 4 candidates, the Conservator, Southern Circle, sent 4, while the Conservator of Forests, Sind Circle, sent 2 only. At the Final Examination held in September 1893, 14 candidates appeared, of whom 12 passed the examination. Mr. F. Gleadow was a full time Professor throughout the year.

## GENERAL REMARKS.

### Imports and Exports of Forest Produce.

229. Duty on foreign timber is levied in the two forest divisions of Khándesh only in the Central Circle as stated last year; and the fees collected on imported timber, Bámboos, &c., amounted to Rs. 22,756 against Rs. 36,910 during 1892-93; the reason of this decrease being due chiefly to the collections of 1892-93 having extended over a period of 15 months, including twice over the two busiest months of the year, and partly to a general decline in the import trade of timber, &c., into Khándesh from the Nizám's forests on the eastern frontier

which are reported to have been closed against permit exploitations. The forests in Holkar's territory across the Aner river on the north of Khándesh are comparatively worked out and a small volume and inferior quality of timber, &c., is being brought from them into the Khándesh District yearly.

CONSERVATOR'S TOUR.

230. The Conservator's camp was in Poona when the year opened and after the close of the rainy season, early in November the Conservator moved camp into the Sátára Division and proceeded to Mahábaleshvar where the Divisional Forest Officer met the Conservator and from this place the surrounding forests and the Hirda operations in progress were inspected, the Collector of the district was met and forest business was discussed, and the divisional office was examined. From Mahábaleshvar camp marched through the Ranges of Jávli, Sátára, Koregaon, Khatáv, and Mán of the Sátára Division, conservancy and works were inspected daily on the way, and the Conservator then crossed the Pandharpur Range of the Sholápur Division, and marched through it into the Mádha Range and encamped at Bársi road on the 11th, Mr. Oliver, the Divisional Forest Officer, and Mr. Fry, Divisional Forest Officer, Working Plans, met him there, and all three camps moved into the Karmála Range to Roplá, where the Divisional Forest Office was examined, and the forests of the Karmála Range were inspected, and forest matters were discussed. The Conservator's camp was in the Sholápur Division up to the Christmas vacation.

231. After the Christmas vacation, the Conservator proceeded to Ahmednagar where he inspected the Divisional Forest Office, and met the Collector, and subsequently marched through parts of the Párner, Ráhuri and Kopargaon Ranges inspecting forests, plantations and works, the Divisional Forest Officer Mr. Hornidge and Mr. Osmaston, Divisional Forest Officer of Working Plans, accompanying him.

232. Then he passed into the Násik Division inspecting forests of the Yeola Range: and from Manmád he and Mr. Osmaston went, with the Collector of Násik, and a party of the Railway Volunteers, from Manmád, and a party of armed police, and a small party of forest guards under two Range Forest Officers armed with guns and sticks, to Yeola, in a special train, on the night of the 6th February, to quell a racial riot which was going on between the Hindus and Mahomedans of the town.

233. After inspecting forests and works in the Chandvad and Málegaon Ranges of the Násik District, the Conservator marched into the Khándesh District to Dhulia where he met the Collector, and he made a tour through portions of the West and East Khándesh Divisions up to the end of February when his camp was at Chálisgaon, from whence he marched through the Nándgaon Range, and went to Násik by railway to meet the Divisional Forest Officer who was proceeding shortly afterwards on leave, and to inspect the Divisional Forest Office.

234. From Násik he returned to Poona by railway where he conducted the entrance examination of the candidates belonging to the Bombay Presidency for the Imperial Forest School at Dehra Dun, and he then went down to Bombay to attend a meeting of the Legislative Council of His Excellency the Governor for making laws and Regulations, to which he had been summoned, in virtue of the honour which had been conferred upon him by His Excellency the Governor in Council, in appointing him to be a member of that august body. Returning to Poona, the Conservator marched with his camp through the Mával, Mulshi and Purandhar Ranges of the Poona Division inspecting forests and works, and then through the Khandála and Wái Ranges of the Sátára Division up to Mahábaleshvar on the 7th May; and on the 10th June he went to head-quarters, Poona, for the rains, from whence a flying visit was paid on the 25th June to Dhulia in Khándesh *vid* Chálisgaon, in order to inspect the Divisional Forest Offices and records of East and West Khándesh in their head-quarters station.

235. The Conservator has much pleasure in recording finally that there has been no avoidable friction in the administration of the forests of the Circle during the year: with the Collectors, his relations, and the relations of the Divisional Forest Officers, in official business, have been harmonious and cordial: every

reasonable assistance and all reasonable support has been given to the management of the forests. From the Commissioner, Central Division, Mr. J. F. Fleet, I.C.S., C.I.E., the Conservator has received the greatest consideration; and, forest administration has received just, sympathetic and impartial treatment. There have been differences of opinion between officers of different departments, as there will always be, when divergent interests have to be considered; and there has been consequently a certain amount of wholesome friction, which is not undesirable, for it evidences that conflicting interests are being safeguarded by the responsible officers. But there has been no unpleasantness: good-will and co-operation have carried the forest interests of the State smoothly through another, and what the Conservator ventures to think may be termed a successful year.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

*Camp Poona,*
*Dated 29th December 1894.*

# FORM No. 46.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Area of Reserved Forests, 1893-94.*

| Division. | Civil District or Territory. | Name of Forest. | Area on 1st July 1893. Acres. | Area on 1st July 1893. Equivalent in Square miles. | Added during the year. Acres. | Excluded or transferred to other heads. Acres. | Area on 30th June 1894. Acres. | Area on 30th June 1894. Equivalent in Square miles. | Number and date of Notification of addition or transfer. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| East Khándesh ... | Khándesh ... | ... | 509,595 | 796 155 | (a) 7,244 | ... | 516,839 | 807 359 | (a) Nos. 6699B 15-9-93, 7780 23-10-93, 5406B 25-6-94. | |
| West Khándesh ... | | | 705,734 | 1,102 454 | (b)320,672 | (c) 16,001 | 1,010,405 | 1,578 485 | (b) Nos. 6263 29-8-93, 8079 3-11-93, 8210A 10-11-93, 2285 29-3-94, 4727 31-5-94, 5406 & 5406A 25-6-94, (c) Nos. 7156 2-10-93, 8160 8-11-93, 8836 1-12-93, 669 26-1-94. | |
| Násik ... ... | Násik ... ... | ... | 818,689 | 1,279 129 | ... | ... | 818,689 | 1,279 129 | | |
| Ahmednagar ... | Ahmednagar ... | ... | 534,071 | 834 311 | (d) 579 | ... | 534,650 | 835 250 | (d) Nos. 6032 21-8-93, 8580 23-11-93. | |
| Poona ... ... | Poona ... ... | ... | 474,468 | 741 228 | *(e) 17,205 | †(f)38,329 | 453,344 | 708 224 | (e) Nos. 6031 22-8-93, 1634 2-3-94, 4258 14-5-94, 4508 22-5-94. (f) Nos. 5680 7-8-93, 4597 28-5-94. | * Of this area 16,075 acres represent rectification of area. † Of this area 38,272 acres represent rectification of area. ‡ Out of this 14,263 acres represent rectification of area. § Out of this 34,838 acres represent rectification of area. |
| Sátára ... ... | Sátára ... | ... | 442,726 | 691 486 | ‡(g)14,343 | §(h)36,003 | 421,066 | 657 586 | (g) No. 4257 14-5-94. (h) Nos. 5374 26-7-93, 6885 25-9-93, 7383 10-10-93, 7596 19-10-93, 7761 & 62 21-10-93, 7914 27-10-93, 8723 28-11-93, 311 & 12 & 36 13-1-94, 363 15-1-94, 4257 14-5-94, 4295 15-5-94, 4299 & 4299A, B, C, D. 15-5-94. 5022 11-6-94, 5046 12-6-94, 5275 19-6-94. | |
| Sholápur ... | Sholápur ... | ... | 177,893 | 277 613 | (i) 112 | ... | 178,005 | 278 85 | (i) Nos. 9078 11-12-93, 2639 & 40 16-4-94. | |
| | | Total... | 3,663,176 | 5,723 456 | 360,155 | 90,333 | 3,932,998 | 6,145 198 | | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

B 1106—19 c.c.

# FORM No. 46 A.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Area of Protected Forests, 1893-94.*

| Division. | Civil District or Territory. | Name of Forest. | Area on 1st July 1893. | | Added during the year. | Excluded or transferred to other heads. | Area on 30th June 1894. | | Number and date of Notification of addition or transfer. | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Acres. | Equivalent in square miles. | Acres. | Acres. | Acres. | Equivalent in square miles. | | |
| | | | | Sq. m. a. | | | | Sq. m. a. | | |
| East Khándesh ... | Khándesh ... | | ... | ... | ... | ... | ... | ... | | |
| West Khándesh ... | | | 113,715 | 177 435 | ... | 113,715 (*a*) | ... | ... | (*a*) Nos. 5,385 26-7-93, 8,210 10-11-93 | |
| Násik ... ... | Násik ... ... | | ... | ... | ... | ... | ... | ... | | |
| Ahmednagar ... | Ahmednagar ... | | 7,164 | 11 124 | ... | ... | 7,164 | 11 124 | | |
| Poona ... ... | Poona ... ... | | ... | ... | ... | ... | ... | ... | | |
| Sátára ... ... | Sátára ... ... | | 644 | 1 4 | *77 | †51 (*b*) | 670 | 1 30 | (*b*) No. 6,956 26-9-93 | *Rectification of area. †Out of this 17 acres represent rectification of area. |
| Sholápur... ... | Sholápur ... | | ... | ... | ... | ... | ... | ... | | |
| | | Total ... | 121,523 | 189 563 | 77 | 113,766 | 7,834 | 12 154 | | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

# FORM No. 47.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Statement showing the progress made in, and the Expenditure incurred on, Forest Settlements during 1893-94.*

| Name of Forest Division. | Name of Civil District or Territory. | Area already settled at commencement of the year. | AREAS FINALLY SETTLED DURING THE YEAR. | | | | | AREAS UNDERGOING SETTLEMENT. | | | | | | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Number and date of Government order according final sanction to the settlement. | Name of Forest settled. | Area, in square miles. | Expenditure incurred during the year on areas finally settled. | | Entire cost per square mile of areas finally settled during the year. | At commencement of the year. | | Taken in hand during the year. | | Expenditure incurred during the year on areas undergoing settlement. | |
| | | | | | | In Forest Accounts. | In other Accounts. | | Name of tract. | Area in square miles. | Name of tract. | Area in square miles. | In Forest Accounts. | In other Accounts. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | Sq. ms. | | | | Rs. | Rs. | Rs. | | | | | Rs. | Rs. | |
| *Reserved Forests.* | | | | | | | | | | | | | | | |
| East Khándesh ... | Khándesh | 796 | Nos. 6696B 15-9-93, 7780 23-10-93, 5406B 25-6-94. | ... | 11 | ... | ... | ... | ... | 4 | ... | ... | 7,509 | ... | Expenditure incurred on areas finally settled and undergoing settlements cannot be given separately and has therefore been entered in lump in columns 14 and 15 for Reserved and Protected Forests. |
| West Khándesh ... | | 1,103 | Nos. 6263 29-8-93, 2285 29-3-94, 5406 & 5406A 25-6-94. 8079 3-11-93, 8210A 10-11-98, 4727 31-5-94, | ... | 501 | ... | ... | ... | ... | 145 | ... | 145 | | | |
| Násik ... ... | Násik ... ... | 1,279 | ..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Ahmednagar ... | Ahmednagar ... | 835 | Nos. 6032 21-8-93, 8580 23-11-93. | ... | 1 | ... | ... | ... | ... | 216/640 | ... | 1 | 934 | ... | |
| Poona .... ... | Poona ... ... | 741 | Nos. 6031 22-8-93, 1634 2-3-94, 4258 14-5-94, 4508 22-5-94. | ... | 2 | ... | ... | ... | ... | 2 293/640 | ... | ... | 1,890 | ... | |
| Sátára ... ... | Sátára ... ... | 692 | No. 42 57 14-5-94. | ... | 1/8 | ... | ... | ... | ... | 11 | ... | 6 | 2,518 | 8,855 | |
| Sholápur ... ... | Sholápur ... | 278 | Nos. 9078. 11-12-93, 2639 & 40 16-4-94. | ... | 7/40 | ... | ... | ... | ... | ... | ... | 36/640 | ... | ... | |
| | Total ... | 5,724 | ..... | ... | 515 3/10 | ... | ... | ... | ... | 163 | ... | 152 | 12,851 | 8,855 | |
| *Protected Forests.* | | | | | | | | | | | | | | | |
| West Khándesh ... | Khándesh ... | 178 | ..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Ahmednagar ... | Ahmednagar ... | 11 | ..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Sátára ... ... | Sátára ... ... | 1 | ..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| | Total ... | 190 | ..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 48.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Record of Demarcation and Maintenance of Boundaries, 1893-94.*

| Division. | Length of boundaries artificially demarcated during the year. | Length of previously existing boundaries repaired. | Length of previously existing boundaries not repaired. | Total length of artificially marked boundaries at the close of the year. | Length of boundaries not demarcated at the close of the year. | Length of natural boundaries not requiring artificial marks. | Total length of boundaries at the close of the year. | Expenditure on Demarcation during the year. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | On new Work. | On Repairs. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Rs. | Rs. | |
| East Khándesh ... ... ... | ... | 443 | ... | 443 | ... | ... | 443 | 17 | 95 | |
| West Khándesh ... ... ... | 300 | 174 | 859 | 1,333 | ... | 26 | 1,359 | 1,020 | 261 | |
| Násik ... ... ... ... ... | 343 | 169 | 2,049 | 2,561 | ... | 318 | 2,879 | 5,192 | 598 | |
| Ahmednagar ... ... ... ... | 68 | 717 | ... | 785 | ... | ... | 785 | 555 | ... | |
| Poona ... ... ... ... ... | 49 | ... | 1,824 | 1,873 | ... | ... | 1,873 | 471 | ... | |
| Sátára ... ... ... ... ... | 198 | 186 | 718 | 1,102 | ... | 100 | 1,202 | 843 | ... | |
| Sholápur ... ... ... ... | 72 | ... | 820 | 892 | ... | ... | 892 | 313 | ... | |
| Total ... | 1,030 | 1,689 | 6,270 | 8,989 | ... | 444 | 9,433 | 8,411 | 954 | |

*N.B.*—Boundaries include, besides the outer perimeter, the limits of enclosures of private or other lands within the forests, but not the limits of sub-divisions, such as blocks, compartments, coupes.

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 49.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Statement of Forest Areas surveyed and under survey during the year 1893-94.*

| Division. | Areas surveyed and under survey during the year. | | | | | | | | | | | | | | | | | | | | | | Areas remaining to be taken under Survey. | Total Forest area at end of the year as per Form No. 46. | COST. | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Special surveys—Maps on 4" scale or over, by Survey of India Department or Forest Survey Branch.* | | | | | | | | *Ordinary, included in District Surveys.* | | | | | | | | *Chain and compass or other surveys by local officers.* | | | | | | | | | | | |
| | WITH INTERIOR DETAILS. | | | | | BOUNDARY SURVEYS. | | | WITH INTERIOR DETAILS. | | | | | BOUNDARY SURVEYS. | | | WITH INTERIOR DETAILS. | | | | | BOUNDARY SURVEYS. | | | | | | | | |
| | WITH DETAILS OF GROWIG STOCK. | | WITHOUT DETAILS OF GROWING STOCK. | | Total Cost. | Previous. | Of the year. | Total Cost. | WITH DETAILS OF GROWING STOCK. | | WITHOUT DETAILS OF GROWING STOCK. | | Total Cost. | Previous. | of the year. | Total Cost. | 4-INCH OR OVER. | | UNDER 4-INCH: | | Total Cost. | Previous. | Of the year. | Total Cost. | | | Previous. | Of the year. | Entire cost of all Surveys to end of the year. | |
| | Previous. | Of the year. | Previous. | Of the year. | | | | | Previous. | Of the year. | Previous. | Of the year. | | | | | Previous. | Of the year. | Previous. | Of the year. | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| *Reserved.* | | | Sq. m. | Sq. m. | Rs. | | | | | | | | | | | | | | | | | | | | Sq. m. | Sq. m. | Rs. | Rs. | Rs. | |
| East Khándesh | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 808 | 808 | .. | .. | .. | |
| West do. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1,579 | 1,579 | .. | .. | .. | |
| Násik | .. | .. | 234 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1,045 | 1,279 | 11,714 | .. | 11,714 | |
| Ahmednagar | .. | .. | 15 | 45 | 4,774 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 775 | 835 | 2,884 | 4,774 | 7,658 | |
| Poona | .. | .. | 550 | 115 | 19,723 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 43 | 708 | 53,690 | 19,723 | 73,413 | |
| Sátára | .. | .. | 76 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 582 | 658 | 5,504 | .. | 5,504 | |
| Sholápur | .. | .. | 30 | 26 | 3,792 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 222 | 278 | 4,578 | 3,792 | 8,370 | |
| Total | .. | .. | 905 | 186 | 28,289 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5,054 | 6,145 | 78,370 | 28,289 | 1,06,659 | |
| *Protected.* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ahmednagar | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 11 | 11 | .. | .. | .. | |
| Sátára | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | |
| Total | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 12 | 12 | .. | .. | .. | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

B 1106—20 c.c.

# FORM No. 50.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Progress made in Working-Plans, 1893-94.*

| Division. | AREAS FOR WHICH WORKING-PLANS HAVE BEEN COMPLETED. | | AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED. | | Areas for which Working-Plans have still to be taken in hand. | Total Forest area, as in Form No. 46. | Entire cost, per square mile, of Working-Plans completed. | REMARKS. |
|---|---|---|---|---|---|---|---|---|
| | At commencement of the year. | During the year. | At commencement of the year. | Taken in hand during the year. | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Sq. ms. | Sq. ms. | Sq. ms. | Sq. ms. | Sq. ms. | Sq. ms. | | |
| *Reserved Forests.* | | | | | | | | |
| East Khándesh ... ... ... | ..... | 70 | ..... | ..... | 738 | 808 | ..... | |
| West Khándesh ... ... ... | 89 | ..... | ..... | ..... | 1,490 | 1,579 | ..... | |
| Násik ... ... ... ... | 167 | 11 | 323 | 8 | 770 | 1,279 | ..... | |
| Ahmednagar ... ... ... | 67 | ..... | ..... | ..... | 768 | 835 | ..... | |
| Poona ... ... ... ... | 14 | 182 | ..... | ..... | 512 | 708 | ..... | |
| Sátára ... ... ... ... | 45 | 39 | ..... | ..... | 574 | 658 | ..... | |
| Sholápur ... ... ... | 202 | ..... | 76 | ..... | ..... | 278 | ..... | |
| Total, Reserved ... | 584 | 302 | 399 | 8 | 4,852 | 6,145 | ..... | |
| *Protected Forests.* | | | | | | | | |
| Ahmednagar ... ... ... | ..... | ..... | ..... | ..... | 11 | 11 | ..... | |
| Sátára ... ... ... ... | 1 | ..... | ..... | ..... | ..... | 1 | ..... | |
| Total ... | 1 | ..... | ..... | ..... | 11 | 12 | ..... | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

# FORM No. 51.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Communications and Buildings during 1893-94.*

| Division. | NEW WORK UNDERTAKEN DURING THE YEAR. | | | | | | REPAIRS EXECUTED DURING THE YEAR. | | | | | | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Buildings. | | Roads and Paths. | | | Total Expenditure on new Work. | Buildings. | | Roads and Paths. | | | Total Expenditure on Repairs. | |
| | Description of Building. | Expenditure incurred. | Road or Path and object of the same. | Length of Road or Path. | Expenditure incurred. | | Nature of Repairs. | Expenditure incurred. | Nature of Repairs. | Length repaired. | Expenditure incurred. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | | | | Miles. | Rs. | Rs. | | Rs. | | Miles. | Rs. | Rs. | |
| East Khándesh ... | 2 Depôt ... | 176 | ... | ... | ... | 176 | Making compounds, tile-turning, mud-plastering of walls and repairing old depôts, &c. | 85 | ..... | ... | ... | 85 | |
| | 8 Huts for Forest Guards. | 109 | ... | ... | ... | 109 | | | | | | | |
| | Total ... | 285 | ... | ... | ... | 285 | ..... | 85 | ..... | ... | ... | 85 | |
| West Khándesh... | 1 Depôt... ... | 60 | ... | .. | ... | 60 | Repairing walls, making compounds and roofing 7 huts and 5 depôts in the Division. | 141 | Repairing Kalambari road (20 feet wide) so as to allow the dealers to remove produce of fellings at Umarpata. | 1 | 22 | 163 | |
| | 1 Rest-house at Laling in Dhulia Range which was partly constructed last year is completed. | 1,254 | ... | ... | ... | 1,254 | | | | | | | |
| | Total ... | 1,314 | .. | ... | ... | 1,314 | ..... | 141 | ..... | 1 | 22 | 163 | |
| Násik ... | 5 Huts for Forest Guards. | 25 | ... | ... | ... | 25 | Repaiaing 17 huts for Forest Guards. | 24 | ... .. | ... | ... | 24 | |
| | 1 House for the Sub. Range Forest Officer, Harsul, and Depôt Officer's hut at Chinchwad. | 60 | ... | ... | ... | 60 | | | | | | | |
| | Total ... | 85 | ... | ... | ... | 85 | ..... | 24 | ..... | ... | ... | 24 | |
| Ahmednagar ... | ..... | ... | ... | ... | ... | ... | Repairs to the Kóltambhe Depôt. | 29 | ..... | ... | ... | 29 | |
| | Total ... | ... | ... | ... | ... | ... | ..... | 29 | ..... | ... | ... | 29 | |
| Poona ... ... | 4 Huts for Forest Guards. | 83 | ... | ... | ... | 83 | ..... | ... | ..... | ... | ... | ... | |
| | Total ... | 83 | ... | ... | ... | 83 | ..... | ... | ..... | .. | ... | ... | |
| Sátára ... ... | ..... | ... | ... | ... | ... | ... | Repairs to existing buildings, &c. | 68 | ..... | ... | ... | 68 | |
| | Total ... | ... | ... | ... | ... | ... | ..... | 68 | ..... | ... | .. | 68 | |
| Sholápur ... | ..... | ... | ... | ... | ... | ... | ..... | ... | ..... | ... | ... | ... | |
| | Grand Total ... | 1,767 | ... | ... | ... | 1,767 | ..... | 347 | ..... | 1 | 22 | 369 | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

## FORM No. 52.

### Forest Department, Bombay, Central Circle.

*Register of Breaches of Forest Rules during 1893-94.*

| Forest Division. | Cases pending from 1892-93. | New Cases of the Year. | | | | | Total cases. | Disposed of during the Year. | | | | | | Cases pending at close of year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Injury to forest by fire. | Unauthorized felling or appropriation of wood and minor forest produce. | Grazing without permission or in tracts in which grazing is prohibited. | Other offences. | Total new cases of the year. | | Convictions. | | Acquittals. | | Total. | | |
| | | | | | | | | Cases. | Persons. | Cases. | Persons. | Cases. | Persons. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| East Khándesh ... A ... | 7 | 3 | 29 | 12 | 24 | 68 | 75 | 54 | 121 | 8 | 16 | 62 | 137 | 13 |
| B ... | ... | 3 | 77 | ... | 5 | 85 | 85 | 85 | 275 | ... | ... | 85 | 275 | ... |
| C ... | ... | 29 | 4 | ... | 2 | 35 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 7 | 35 | 110 | 12 | 31 | 188 | 160 | 139 | 396 | 8 | 16 | 147 | 412 | 13 |
| West Khándesh ... A ... | 8 | 16 | 47 | 1 | 14 | 78 | 86 | 75 | 202 | 3 | 6 | 78 | 208 | 8 |
| B ... | ... | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 19 | ... | ... | 4 | 19 | ... |
| C ... | ... | 89 | 24 | 1 | 10 | 124 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 8 | 106 | 72 | 3 | 25 | 206 | 90 | 79 | 221 | 3 | 6 | 82 | 227 | 8 |
| Násik ... ... A ... | 17 | 2 | 38 | 47 | 8 | 95 | 112 | 59 | 171 | 28 | 95 | 87 | 266 | 25 |
| B ... | *159 | ... | 80 | 9 | 5 | 94 | 94 | 94 | 297 | ... | ... | 94 | 297 | ... |
| C ... | ... | 87 | 67 | 1 | 4 | 159 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 176 | 89 | 185 | 57 | 17 | 348 | 206 | 153 | 468 | 28 | 95 | 181 | 563 | 25 |
| Ahmednagar ... A ... | 9 | ... | 32 | 161 | 50 | 243 | 252 | 176 | 537 | 43 | 149 | 219 | 686 | 33 |
| B ... | 234 | ... | 123 | ... | 63 | 186 | 420 | 369 | 485 | ... | ... | 369 | 485 | †51 |
| C ... | ... | ... | 123 | ... | 22 | 145 | ... | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 243 | ... | 278 | 161 | 135 | 574 | 672 | 545 | 1,022 | 43 | 149 | 588 | 1,171 | 84 |

*In these pending cases offenders were warned and therefore not taken into account this year.

†Out of this 38 cases written of during this year.

## FORM No. 52—*continued.*

| Forest Division. | | Cases pending from 1892-93. | New Cases of the Year. | | | | | Total cases. | Disposed of during the Year. | | | | | | Cases pending at close of year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Injury to forest by fire. | Unauthorized felling or appropriation of wood and minor forest produce. | Grazing without permission or in tracts in which grazing is prohibited. | Other offences. | Total new cases of the year. | | Convictions. | | Acquittals. | | Total. | | |
| | | | | | | | | | Cases. | Persons. | Cases. | Persons. | Cases. | Persons. | |
| 1 | | 2 | 3 | 4 | 5 | 6 | | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Poona ... ... | A ... | 35 | 7 | 90 | 288 | 95 | 480 | 515 | 361 | 638 | 131 | 359 | 492 | 997 | 23 |
| | B ... | ... | 2 | 42 | 142 | 9 | 195 | 195 | 195 | 447 | ... | ... | 195 | 447 | ... |
| | C ... | ... | 47 | 181 | 41 | 63 | 332 | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 35 | 56 | 313 | 471 | 167 | 1,007 | 710 | 556 | 1,085 | 131 | 359 | 687 | 1,444 | 23 |
| Sátára ... ... | A ... | 39 | 28 | 143 | 241 | 107 | 519 | 558 | 385 | 884 | 56 | 205 | 441 | 1,089 | 117 |
| | B ... | 119 | ... | 9 | 4 | 4 | 17 | 136 | 83 | 223 | ... | ... | 83 | 223 | 53 |
| | C ... | ... | 92 | 129 | 186 | 19 | 426 | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 158 | 120 | 281 | 431 | 130 | 962 | 694 | 468 | 1,107 | 56 | 205 | 524 | 1,312 | 170 |
| Sholápur ... ... | A ... | 7 | ... | 28 | 18 | 7 | 53 | 60 | 32 | 76 | 26 | 58 | 58 | 134 | 2 |
| | B ... | ... | ... | 25 | 35 | 36 | 96 | 96 | 96 | 205 | ... | ... | 96 | 205 | ... |
| | C ... | ... | 7 | 2 | ... | ... | 9 | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 7 | 7 | 55 | 53 | 43 | 158 | 156 | 128 | 281 | 26 | 58 | 154 | 339 | 2 |
| Grand Total ... | A ... | 122 | 56 | 407 | 768 | 305 | 1,536 | 1,658 | 1,142 | 2,629 | 295 | 888 | 1,437 | 3,517 | 221 |
| | B ... | *512 | 6 | 357 | 191 | 123 | 677 | 1,030 | 926 | 1,951 | ... | ... | 926 | 1,951 | †104 |
| | C ... | ... | 351 | 530 | 229 | 120 | 1,230 | ... | ... | ... | ... | ... | ... | ... | ... |

*N. B.*—A means cases taken into Court.
B means cases disposed of under Section 67 of Indian Forest Act, 1878.
C means undetected cases.

*Camp Poona,*
*Dated 29th December 1891.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

# FORM No. 53.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Area of Forest Tracts protected from Fire during 1893-94.*

| Division. | Forest Tracts. | Year in which protection commenced. | Area protected during 1892-93. | Area attempted to be protected. | Failures. | Area actually protected. | Cost. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | Acres. | Acres. | Acres. | Acres. | Rs. | |
| East Khándesh ... | Amalner ... ... ... | 1878-79 ... | 19,625 | 20,388 | 395 | 19,993 | 10 | |
| | Páchora ... ... ... | " ... | 28,463 | 29,508 | 210 | 29,298 | 10 | |
| | Bhadgaon ... ... | | | | | | | |
| | Bhusával ... ... | " ... | 62,285 | 65,942 | 6,125 | 59,817 | 4 | |
| | Edalabad ... ... | | | | | | | |
| | Chálisgaon ... ... | " ... | 59,868 | 60,150 | 852 | 59,298 | 29 | |
| | Chopda ... ... ... | " ... | 98,609 | 107,668 | 6,201 | 101,467 | 122 | |
| | Erandol ... ... ... | " .. | 16,675 | 17,368 | 175 | 17,193 | ... | |
| | Jalgaon ... ... ... | " ... | 21,256 | 21,440 | 431 | 21,009 | 4 | |
| | Jámner ... ... ... | " ... | 41,197 | 42,557 | 1,038 | 41,519 | 21 | |
| | Ráver ... ... ... | | | | | | | |
| | Sávda ... .. ... | " ... | 119,549 | 154,264 | 244 | 154,020 | 100 | |
| | Yával ... ... ... | | | | | | | |
| | Total ... | ... | 467,527 | 519,285 | 15,671 | 503,614 | 300 | |
| West Khándesh... | Dhulia ... ... ... | 1878-79 ... | 122,192 | 125,256 | 181 | 125,075 | 91 | |
| | Nandurbár ... ... | " ... | 66,242 | 134,601 | 15,039 | 119,562 | 196 | |
| | Navápur ... ... | | | | | | | |
| | Pimpalner ... ... | " ... | 157,298 | 260,216 | 26,677 | 233,539 | 276 | |
| | Nizámpur ... ... | | | | | | | |
| | Sháháda... ... ... | " ... | 57,680 | 83,199 | 5,075 | 78,124 | 58 | |
| | Shirpur ... ... ... | " ... | 136,148 | 206,136 | 16,830 | 189,306 | 204 | |
| | Sindkheda ... ... | " ... | 23,916 | 22,652 | ... | 22,652 | 40 | |
| | Taloda ... ... ... | " ... | 224,660 | 271,442 | 25,933 | 245,509 | 171 | |
| | Akráni ... ... ... | | | | | | | |
| | Total ... | ... | 788,136 | 1,103,502 | 89,735 | 1,013,767 | 1,036 | |
| Násik ... ... | Násik ... ... ... | 1878-79 ... | 43,627 | 43,970 | 744 | 43,226 | 34 | |
| | Igatpuri ... ... | " ... | 53,823 | 53,976 | 509 | 53,467 | 3 | |
| | Sinnar ... ... ... | " ... | 34,978 | 35,370 | 111 | 35,259 | ... | |
| | Dindori ... ... ... | " ... | 54,144 | 55,377 | 1,399 | 53,978 | 4 | |
| | Niphád ... ... ... | " .. | 3,394 | 3,446 | 17 | 3,429 | ... | |
| | Chándor ... ... ... | " ... | 24,656 | 24,898 | 62 | 24,836 | 7 | |
| | Yeola ... ... ... | " ... | 31,322 | 31,541 | 13 | 31,528 | ... | |
| | Báglán ... ... ... | " ... | 121,395 | 124,767 | 378 | 123,789 | 16 | |
| | Kalvan ... ... ... | " ... | 108,635 | 109,361 | 1,464 | 107,897 | 9 | |
| | Peint ... ... ... | " ... | 107,102 | 107,218 | 47 | 107,171 | 3 | |
| | Málegaon ... ... | " ... | 121,512 | 122,066 | 371 | 121,695 | ... | |
| | Nándgaon ... ... | " ... | 106,429 | 107,311 | 26 | 107,285 | 21 | |
| | Total ... | ... | 811,017 | 818,701 | 5,141 | 813,560 | 97 | |
| Ahmednagar ... | Nagar ... ... ... | 1878-79 ... | 39,334 | 40,493 | 34 | 40,459 | 1 | |
| | Párner ... ... ... | " ... | 63,893 | 64,147 | 4 | 64,143 | ... | |
| | Shrigonda ... ... | " ... | 44,534 | 44,620 | 197 | 44,423 | ... | |
| | Karjat ... ... ... | " ... | 49,699 | 50,149 | ... | 50,149 | ... | |
| | Jámkhed ... ... | " ... | 39,801 | 40,034 | 334 | 39,700 | ... | |
| | Shevgaon ... ... | " ... | 26,494 | 26,655 | 149 | 26,506 | ... | |
| | Nevása ... ... ... | " ... | 19,695 | 19,765 | 3 | 19,762 | ... | |
| | Ráhuri ... ... ... | " ... | 48,815 | 48,937 | ... | 48,937 | ... | |
| | Kopargaon ... ... | " ... | 9,109 | 9,109 | 27 | 9,082 | 2 | |
| | Sangamner ... ... | " ... | 86,710 | 86,745 | 22 | 86,723 | ... | |
| | Akola ... ... ... | " ... | 110,832 | 111,376 | 334 | 111,042 | ... | |
| | Total ... | ... | 538,916 | 542,030 | 1,104 | 540,926 | 3 | |
| Poona ... ... | Junnar ... ... ... | 1878-79 ... | 60,531 | 60,975 | 629 | 60,346 | 121 | |
| | Indápur... ... ... | " ... | 61,480 | 61,234 | ... | 61,234 | 176 | |
| | Khed ... ... ... | " ... | 55,151 | 54,270 | 884 | 53,386 | ... | |
| | Ambegaon ... ... | " ... | 43,864 | 41,073 | 379 | 40,694 | ... | |
| | Sirúr ... ... ... | " ... | 20,691 | 20,820 | 4 | 20,816 | ... | |
| | Purandhar ... ... | " ... | 25,545 | 24,326 | 339 | 23,987 | 79 | |
| | Bhimthadi ... ... | " ... | 19,370 | 35,634 | 28 | 35,606 | ... | |
| | Dhond ... ... ... | " ... | 52,396 | 36,269 | 71 | 36,198 | ... | |
| | Haveli ... ... ... | " ... | 49,915 | 39,806 | 784 | 39,022 | 5 | |
| | Mulshi ... ... ... | " ... | 27,478 | 25,925 | 327 | 25,598 | ... | |
| | Mával ... ... ... | " ... | 53,448 | 54,585 | 1,848 | 52,737 | 230 | |
| | Total ... | ... | 469,869 | 454,917 | 5,293 | 449,624 | 611 | |

## FORM No. 53—*continued.*

| Division. | Forest Tracts. | Year in which protection commenced. | Area protected during 1892-93. | Area attempted to be protected. | Failures. | Area actually protected. | Cost. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | Acres. | Acres. | Acres. | Acres. | Rs. | |
| Sátára ... ... | Mahábaleshvar... ... | 1878-79 ... | 40,660 | 38,500 | 857 | 37,643 | ... | |
| | Mán ... ... ... | ,, ... | 56,057 | 43,563 | 10 | 43,553 | ... | |
| | Khatáv ... ... ... | ,, ... | 20,885 | 17,199 | ... | 17,199 | ... | |
| | Karád ... ... ... | ,, ... | 35,964 | 30,059 | 80 | 29,979 | ... | |
| | Wái ... ... ... | ,, ... | 24,827 | 24,472 | 778 | 23,694 | 8 | |
| | Koregaon ... ... | ,, ... | 28,135 | 25,847 | 138 | 25,709 | ... | |
| | Sátára ... ... ... | ,, ... | 22,120 | 21,254 | 68 | 21,186 | ... | |
| | Tásgaon... ... ... | ,, ... | 20,101 | 18,641 | 8 | 18,633 | ... | |
| | Khandála ... ... | ,, ... | 14,129 | 14,305 | 65 | 14,240 | 2 | |
| | Jávli ... ... ... | ,, ... | 50,942 | 53,036 | 450 | 52,586 | 1 | |
| | Khánápur ... ... | ,, ... | 36,841 | 32,231 | 49 | 32,182 | ... | |
| | Válva ... ... ... | ,, ... | 28,639 | 38,190 | 466 | 37,724 | ... | |
| | Shirála ... ... ... | | | | | | | |
| | Pátan ... ... ... | ,, ... | 63,487 | 68,493 | 958 | 67,535 | ... | |
| | Total ... | ... | 442,787 | 425,790 | 3,927 | 421,863 | 11 | |
| Sholápur... ... | Sholápur ... ... | 1878-79 ... | 38,487 | 38,554 | ... | 38,554 | 48 | |
| | Bársi ... ... ... | ,, ... | 8,534 | 8,572 | 382 | 8,190 | | |
| | Mádha ... ... ... | ,, ... | 31,145 | 31,428 | 4 | 31,424 | | |
| | Karmála ... ... | ,, ... | 50,785 | 51,267 | 70 | 51,197 | | |
| | Pandharpur ... ... | ,, ... | 6,192 | 6,192 | ... | 6,192 | | |
| | Sángola... ... ... | ,, ... | 20,589 | 20,583 | 1 | 20,582 | | |
| | Málsiras ... ... | ,, ... | 21,443 | 21,445 | ... | 21,445 | | |
| | Total ... | ... | 177,175 | 178,041 | 457 | 177,584 | 48 | |
| | Grand Total ... | ... | 3,695,427 | 4,042,266 | 121,328 | 3,920,938 | 2,106 | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 54.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Area closed and open to Grazing during 1893-94.*

| Division. | Area, in Square Miles. | | | | | | Remarks. |
|---|---|---|---|---|---|---|---|
| | Closed to all Animals. | | Closed to browsers (Camels, Goats or Sheep). | | Open to all Animals. | Total Area. | |
| | Whole year. | Part of year. | Whole year. | Part of year. | Whole year. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| *Reserved Forests.* | | | | | | | |
| East Khándesh ... ... ... | 60 | ... | 748 | ... | ... | 808 | Areas entered in column 4 are open to cattle of the bovine species during a portion of the year, that is, during the grazing season. |
| West „ ... ... ... | 365 | ... | 1,214 | ... | ... | 1,579 | |
| Násik ... ... ... ... | 468 | ... | 811 | ... | ... | 1,279 | |
| Ahmednagar ... ... ... | 293 | 124 | 418 | ... | ... | 835 | |
| Poona ... ... ... ... | 364 | 316 | 28 | ... | ... | 708 | |
| Sátára ... ... ... ... | 174 | 175 | 309 | ... | ... | 658 | |
| Sholápur ... ... ... ... | 188 | ... | 90 | ... | ... | 278 | |
| Total ... | 1,912 | 615 | 3,618 | ... | ... | 6,145 | |
| *Protected Forests.* | | | | | | | |
| Ahmednagar ... ... ... | ... | 11 | ... | ... | ... | 11 | |
| Sátára ... ... ... ... | ... | ... | 1 | ... | ... | 1 | |
| Total ... | ... | 11 | 1 | ... | ... | 12 | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 55.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Return of Grazing in the State Forests during 1893-94.*

| Division. | GRAZING ON PAYMENT—NUMBER OF ANIMALS. | | | | | | | | | | | | | GRAZING FREE—NUMBER OF ANIMALS. | | | | | | | | | | | | Grand total of value at full rates. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AT FULL RATES. | | | | | | AT PRIVILEGED RATES. | | | | | | | BY RIGHT UNDER SETTLEMENT. | | | | | | DURING PLEASURE OF GOVERNMENT, OR OTHERWISE THAN UNDER SETTLEMENT. | | | | | | Total value of Fees at full rates | |
| | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other Animals | Fees received. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other Animals | Fees received. Actual. | Fees received. Value at full rates. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other Animals | Value of Fees at full rates. | Buffaloes. | Cows. and Bullocks. | Goats and Sheep. | Camels. | Other Animals | Value of Fees at full rates. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | | | | | | | | | | | | Rs. | Rs. | | | | | | | | | | | | Rs. | Rs. | Rs. |
| East Khándesh | 3,832 | 21,020 | 40,359 | ... | 705 | 21,039 | 18,874 | 107,837 | 571 | ... | ... | 36,432 | 72,862 | ... | ... | ... | ... | ... | ... | 1 514 | 8,228 | 19 | ... | 915 | 5,777 | 5,777 | 99,678 |
| West Khándesh | 7,471 | 49,124 | 247,847 | ... | 5,291 | 77,605 | 11,337 | 94,474 | 889 | ... | 179 | 21,882 | 58,825 | ... | ... | ... | ... | ... | ... | 2,323 | 20,926 | 2 | ... | 335 | 6,476 | 6,476 | 1,42,906 |
| Násik ... ... | 1,880 | 12,846 | 23,177 | ... | 352 | 11,958 | 5,563 | 95,668 | 21,076 | ... | 77 | 28,177 | 56,354 | ... | ... | ... | ... | ... | ... | 6,482 | 43,538 | 4,335 | ... | 30 | 28,808 | 28,808 | 97,120 |
| Ahmednagar ... | 880 | 3,881 | 4,066 | ... | 32 | 3,347 | 5,574 | 99,779 | 46,220 | ... | 135 | 30,680 | 61,360 | ... | ... | ... | ... | ... | ... | 237 | 10,305 | 5 37 | ... | ... | 3,247 | 3,247 | 67,954 |
| Poona ... ... | 853 | 2,336 | 9,153 | ... | 4 | 3,606 | 1,734 | 18,224 | 67,053 | ... | 56 | 9,748 | 19,496 | ... | .. | ... | ... | ... | ... | 10,628 | 33,728 | ... | ... | ... | 52,990 | 52,990 | 76,092 |
| Sátára ... ... | 700 | 968 | 921 | ... | 1 | 1,352 | 1,221 | 6,637 | 32,698 | ... | 6 | 4,342 | 8,684 | ... | ... | ... | ... | ... | ... | 25,949 | 129,746 | ... | ... | ... | 77,848 | 77,848 | 87,884 |
| Sholápur ... | 100 | 439 | ... | ... | ... | 319 | 1,467 | 27,416 | ... | ... | 45 | 7,637 | 15.272 | ... | ... | ... | ... | ... | ... | 11,30 | 7,695 | ... | ... | 75 | 2,473 | 2,473 | 18,004 |
| Total ... | 15,716 | 91,613 | 325,523 | ... | 6,385 | 119,226 | 45,820 | 450,035 | 168,507 | ... | 548 | 1,38,898 | 2,92,853 | ... | .. | ... | ... | ... | ... | 48,263 | 304,166 | 10,193 | ... | 1,355 | 1,77,619 | 1,77,619 | 5,89,698 |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

# FORM No. 56.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

## *Area of Plantations, 1893-94.*

| Division. | Name of Plantation. | Area in Acres. | | | | Receipts. | Charges. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | On 1st July 1893. | Added during the year. | Excluded during the year. | Area on 30th June 1894. | Of the year. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | *Regular Plantations.* | | | | | Rs. | Rs. | |
| East Khándesh ... | *Nil*... ... ... ... | ... | ... | ... | ... | ... | ... | |
| West Khándesh ... | Dhulia ... ... ... | 26 | ... | ... | 26 | ... | 80 | |
| | Pimpalner... ... ... | 2 | ... | ... | 2 | ... | 46 | |
| | Total ... | 28 | ... | ... | 28 | ... | 126 | |
| Násik ... ... | Sátpur ... ... ... | 31 | ... | ... | 31 | ... | 59 | |
| | Páthardi ... ... ... | 17 | ... | ... | 17 | 13 | 93 | |
| | Násik Gangákáth ... | 12 | ... | ... | 12 | 14 | 121 | |
| | Sawandgaon ... ... | 70 | ... | ... | 70 | ... | 10 | |
| | Total ... | 130 | ... | ... | 130 | 27 | 283 | |
| Ahmednagar ... | Dongargan ... ... | 142 | ... | ... | 142 | ... | 72 | |
| Poona ... ... | Junnar ... ... ... | 314 | 48 | ... | 362 | ... | 142 | |
| | Indápur ... ... ... | 607 | 598 | ... | 1,205 | ... | 669 | |
| | Khed ... ... ... | 2 | 66 | ... | 68 | ... | ... | |
| | Ámbegaon... ... ... | 380 | 275 | ... | 655 | ... | ... | |
| | Sirúr ... ... ... | 222 | 32 | ... | 254 | ... | 27 | |
| | Purandhar... ... ... | ... | ... | ... | ... | ... | ... | |
| | Bhimthadi... ... .. | 178 | 76 | ... | 254 | ... | 265 | |
| | Dhond ... ... ... | 298 | 202 | ... | 500 | ... | 473 | |
| | Haveli ... ... ... | 224 | 45 | ... | 269 | ... | 493 | |
| | Mulshi ... ... ... | ... | ... | ... | ... | ... | 46 | |
| | Mával ... ... ... | 15 | 139 | ... | 154 | ... | 47 | |
| | Total ... | 2,240 | 1,481 | ... | 3,721 | ... | 2,162 | |
| Sátára ... ... | Jávli ... ... ... | 42 | ... | ... | 42 | ... | ... | |
| | Karád ... ... ... | 307 | ... | ... | 307 | ... | 75 | |
| | Khánápur ... ... ... | 73 | ... | ... | 73 | ... | ... | |
| | Khandála ... ... ... | 122 | ... | ... | 122 | ... | ... | |
| | Khatáv ... ... ... | 312 | ... | ... | 312 | ... | ... | |
| | Koregaon .. ... ... | 254 | ... | ... | 254 | ... | 152 | |
| | Mahábaleshvar ... ... | 1,128 | ... | ... | 1,128 | ... | 70 | |
| | Mán ... ... ... | 165 | ... | ... | 165 | ... | 96 | |
| | Patan ... ... ... | 175 | 2 | ... | 177 | ... | 75 | |
| | Sátára ... ... ... | 108 | ... | ... | 108 | ... | 140 | |
| | Shirála ... ... ... | 26 | ... | ... | 26 | ... | ... | |
| | Tásgaon ... ... ... | 304 | ... | ... | 304 | ... | ... | |
| | Wái ... ... ... | 264 | ... | ... | 264 | ... | 76 | |
| | Válva ... ... ... | 102 | 5 | ... | 107 | ... | 68 | |
| | Total ... | 3,382. | 7 | ... | 3,389 | ... | 752 | |
| Sholápur ... ... | *Nil*... ... ... ... | ... | ... | ... | ... | ... | ... | |
| | Total, Regular Plantations | 5,922 | 1,488 | ... | 7,410 | 27 | 3,395 | |
| | *Cultural Operations.* | | | | | | | |
| East Khándesh... | Amalner ... ... ... | 2,491 | 20 | ... | 2,511 | ... | 28 | |
| | Bhadgaon ... ... ... | 561 | 225 | ... | 786 | ... | 31 | |
| | Bhusával ... ... ... | 3,326 | 622 | ... | 3,948 | ... | 1 | |
| | Chálisgaon ... ... | 1,024 | 150 | ... | 1,174 | ... | 29 | |
| | Chopda ... ... ... | 1,348 | 139 | ... | 1,487 | ... | 49 | |
| | Edalabad ... ... ... | 2,969 | 176 | ... | 3,145 | ... | 68 | |
| | Erandol ... ... ... | 5,831 | 297 | ... | 6,128 | ... | 23 | |
| | Jalgaon ... ... ... | 1,145 | 378 | ... | 1,523 | ... | 43 | |
| | Jánner ... ... ... | 1,714 | 23 | ... | 1,737 | ... | 68 | |
| | Páchora ... ... ... | 206 | 41 | ... | 247 | ... | 44 | |
| | Ráver ... ... ... | 818 | 24 | ... | 842 | ... | 17 | |
| | Sávda ... ... ... | 1,224 | 200 | ... | 1,424 | ... | 21 | |
| | Yával ... ... ... | 762 | 50 | ... | 812 | ... | 1 | |
| | Total ... | 23,419 | 2,345 | ... | 25,764 | ... | 423 | |
| West Khándesh ... | Akráni ... ... ... | 250 | 20 | 40 | 230 | ... | | |
| | Dhulia ... ... ... | 4,274 | 23 | 45 | 4,252 | ... | | |
| | Nandurbár ... ... | 814 | 19 | 40 | 793 | ... | | |
| | Navápur ... ... ... | 1,420 | 20 | 40 | 1,400 | ... | | |
| | Nizámpur ... ... ... | 555 | 19 | 40 | 534 | ... | 411 | |
| | Pimpalner ... ... ... | 1,563 | 21 | 40 | 1,544 | ... | | |
| | Sháháda ... ... ... | 3,527 | 19 | 40 | 3,506 | ... | | |
| | Shirpur ... ... ... | 1,791 | 27 | 60 | 1,758 | ... | | |
| | Sindkhedá... ... ... | 6,182 | 7 | 20 | 6,169 | ... | | |
| | Taloda ... ... ... | 1,110 | 20 | 40 | 1,090 | ... | | |
| | Total ... | 21,486 | 195 | 405 | 21,276 | ... | 411 | |

FORM No. 56—*continued.*

| Division. | Name of Plantation. | Area in Acres. On 1st July 1893. | Added during the year. | Excluded during the year. | Area on 30th June 1894. | Receipts. Of the year. | Charges. Of the year. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8. | 9 |
| | *Cultural Operations*—continued. | | | | | Rs. | Rs. | |
| Násik | Násik | 390 | 589 | 58 | 921 | 64 | 395 | |
| | Igatpuri | 464 | 422 | ... | 886 | ... | 395 | |
| | Sinnar | 440 | 821 | ... | 1,261 | ... | 197 | |
| | Dindori | 75 | ... | ... | 75 | ... | 29 | |
| | Niphád | 209 | ... | ... | 209 | ... | 94 | |
| | Chándor | 940 | ... | ... | 940 | ... | 68 | |
| | Peint | 60 | ... | ... | 60 | ... | 11 | |
| | Yeola | 2,177 | 217 | ... | 2,394 | ... | 127 | |
| | Nándgaon | 584 | 1,781 | ... | 2,365 | ... | 564 | |
| | Málegaon | 1,899 | ... | ... | 1,899 | ... | 2 | |
| | Báglan | 273 | ... | ... | 273 | ... | 11 | |
| | Kalvan | 228 | ... | ... | 228 | ... | 1 | |
| | Total | 7,739 | 3,830 | 58 | 11,511 | 64 | 1,894 | |
| Ahmednagar | Ahmednagar | 4,303 | 150 | ... | 4,453 | ... | 25 | |
| | Párner | 1,758 | 12 | ... | 1,770 | ... | 32 | |
| | Shrigonda | 4,511 | 431 | ... | 4,942 | ... | 141 | |
| | Karjat | 3,148 | 78 | ... | 3,226 | ... | 39 | |
| | Jámkhed | 3,348 | 429 | ... | 3,777 | ... | 52 | |
| | Shevgaon | 2,759 | 945 | ... | 3,704 | ... | 135 | |
| | Nevása | 1,793 | 760 | ... | 2,553 | ... | 63 | |
| | Ráhuri | 1,696 | 351 | ... | 2,047 | ... | 158 | |
| | Kopargaon | 2,319 | 628 | ... | 2,947 | ... | 221 | |
| | Sangamner | 7,923 | 93 | ... | 8,016 | ... | 74 | |
| | Akola | 3,115 | 1,171 | ... | 4,286 | ... | 90 | |
| | Total | 36,673 | 5,048 | ... | 41,721 | ... | 1,030 | |
| Poona | Junnar | 1,158 | 60 | ... | 1,218 | ... | 24 | |
| | Indápur | 3,973 | ... | ... | 3,973 | ... | ... | |
| | Khed | 7,438 | 18 | ... | 7,456 | ... | ... | |
| | Ambegaon | 2,321 | 77 | ... | 2,398 | ... | 23 | |
| | Sirúr | 7,078 | ... | ... | 7,078 | ... | ... | |
| | Purandhar | 6,084 | ... | ... | 6,084 | ... | ... | |
| | Bhimthadi | 2,208 | ... | ... | 2,208 | ... | ... | |
| | Dhond | 3,773 | ... | ... | 3,773 | ... | ... | |
| | Haveli | 2,166 | 170 | ... | 2,336 | ... | 46 | |
| | Mulshi | 866 | ... | ... | 866 | ... | ... | |
| | Mával | 1,148 | 60 | ... | 1,216 | ... | 19 | |
| | Plantation by guards | 6,784 | 3,026 | ... | 9,810 | ... | ... | |
| | Total | 44,997 | 3,419 | ... | 48,416 | ... | 112 | |
| Sátára | Jávli | 15,617 | 106 | ... | 15,723 | ... | 133 | |
| | Karád | 27,396 | 88 | ... | 27,484 | ... | 203 | |
| | Khánápur | 10,429 | 12 | ... | 10,441 | ... | 14 | |
| | Khandála | 4,376 | 39 | ... | 4,415 | ... | 39 | |
| | Khatáv | 1,394 | 50 | .. | 1,444 | ... | 83 | |
| | Koregaon | 23,376 | 141 | ... | 23,517 | ... | 60 | |
| | Mahábaleshvar | 6,738 | 57 | ... | 6,795 | ... | 9 | |
| | Man | 14,089 | 11 | ... | 14,100 | ... | ... | |
| | Pátan | 6,639 | 25 | ... | 6,664 | ... | 95 | |
| | Sátára | 3,498 | 126 | ... | 3,624 | ... | 169 | |
| | Shirála | 744 | 7 | ... | 751 | ... | 19 | |
| | Tásgaon | 1,374 | 2 | ... | 1,376 | ... | 75 | |
| | Wái | 18,535 | 30 | ... | 18,565 | ... | 70 | |
| | Válva | 5,458 | 6 | ... | 5,464 | ... | ... | |
| | Total | 1,39,663 | 700 | ... | 1,40,363 | ... | 969 | |
| Sholápur | Sholápur | 5,893 | 513 | 67 | 6,339 | ... | 110 | |
| | Bársi | 4,126 | ... | 150 | 3,976 | ... | 19 | |
| | Mádha | 10,664 | 336 | 70 | 10,930 | ... | 582 | |
| | Karmála | 48,265 | ... | 155 | 48,110 | ... | 30 | |
| | Pandharpur | 5,896 | 1,102 | 30 | 6,968 | ... | 100 | |
| | Sángola | 8,062 | 249 | 90 | 8,221 | ... | 21 | |
| | Malsiras | 25,334 | 651 | 80 | 25,905 | ... | 49 | |
| | Total | 108,240 | 2,851 | 642 | 110,449 | ... | 911 | |
| | Total Cultural Operations. | 382,217 | 18,388 | 1,105 | 399,500 | 64 | 5,750 | |
| | *Add*—Regular Plantations | 5,922 | 1,488 | ... | 7,410 | ·27 | 3,395 | |
| | Grand Total | 388,139 | 19,876 | 1,105 | 406,910 | 91 | 9,145 | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

# FORM No. 57.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Outturn (in cubic feet, solid) of Timber and Fuel during the year 1893-94 and Agency of Exploitation.*

| Division. | TIMBER IN THE ROUGH; LOGS. | | | | | TIMBER IN THE ROUGH; POLES. | | | | | SAWN OR SQUARED TIMBER. | | | | | MISCELLANEOUS. | | | | | FUEL. | | | | | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Outturn. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| | | C. ft. | | | C. ft. | C. ft. | C. ft. | C. ft. | | C. ft. | | | | | | | C. ft. | | | C. ft. | C. ft. | C. ft. | C. ft. | | C. ft. | C. ft. |
| East Khándesh .. | .. | 85,455 | .. | .. | 85 455 | 16,045 | .. | .. | .. | 16,045 | .. | .. | .. | .. | ... | .. | Bamboos, No. 782,564 | .. | .. | Bamboos, No. 782,564 | 602,100 | 947,520 | .. | .. | 1,549,620 | 1,651,120 Bamboos, No. 782,564 |
| West Khándesh .. | .. | .. | .. | .. | .. | 141,608 | 158,780 | .. | .. | 300,388 | .. | .. | .. | .. | .. | .. | Bamboos, No. 211,780 | .. | .. | Bamboos, No. 211,780 | 490,210 | 243,150 | .. | .. | 733,360 | 1,033,748 Bamboos, No. 211,780 |
| Násik .. .. .. | .. | .. | .. | .. | .. | 11,802 | 1,361,803 | 13,428 | .. | 1,387,033 | .. | .. | .. | .. | .. | .. | Bamboos, No. 122,803 cart loads. 497 | .. | .. | Bamboos, No. 122,803 Cart loads, 497 | 55,759 | 518,825 | 1,124 | .. | 575,708 | 1,962,741 Bamboos, No, 122,803 Cart loads of Bamboos, 497 |
| Ahmednagar .. .. | .. | .. | .. | .. | .. | 42,705 | .. | 2,826 | .. | 45,531 | .. | .. | .. | .. | .. | .. | Bamboos, No. 40,678 | .. | .. | Bamboos, No. 4,0678 | 58,822 | 80,067 | .. | .. | 138,889 | 184,420 Bamboos, No. 40,678 |
| Poona .. .. .. | .. | .. | .. | .. | .. | 15,818 | 220,912 | 7,100 | .. | 243,830 | .. | .. | .. | .. | .. | .. | Bamboos, No. 105,968 | .. | .. | Bamboos, No. 105,968 | 42,134 | 287,173 | .. | .. | 329,307 | 573,137 Bamboos, No. 105, 968 |
| Satára .. .. .. | .. | .. | .. | .. | .. | 19,132 | 23,237 | 171 | .. | 42,540 | .. | .. | .. | .. | .. | .. | Bamboos, No. 67,403 | .. | .. | Bamboos, No. 67,403 | 502,007 | 7,113 | .. | .. | 509,120 | 551,660 Bamboos, No. 67,403 |
| Sholápur .. .. | .. | .. | .. | .. | .. | .. | 12,783 | .. | .. | 12,783 | .. | .. | .. | .. | .. | .. | 243 | .. | .. | 243 | 2,478 | 8,704 | .. | .. | 11,182 | 24,208 |
| Total .. | .. | 85,455 | .. | .. | 85,455 | 247,110 | 1,777,515 | 23,525 | .. | 2,048,150 | .. | .. | .. | .. | .. | .. | 243 Bamboos, No. 1,331,196 Cart loads, 497 | .. | .. | 243 Bamboos, No. 1,331,196 Cart loads, 497 | 1,753,510 | 2,092,552 | 1,124 | .. | 3,847,186 | 5,981,034 Bamboos, No. 1,331,196 Cart loads of Bamboos, 497 |

Charcoal should be shown by its equivalent in fuel, the quantity of wood consumed in producing it being entered in cubic feet solid.

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

# FORM No. 58.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Outturn of Minor Forest Produce during the year 1893-94.*

| Division. | Description of Produce. | Produce removed or utilized. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | By Government Agency. | | By Purchaser. | | By Free Grants. | | By Right-holders. | | Total. | |
| | | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11. | 12 |
| | | | Rs. | | Rs. | | Rs. | | Rs. | | Rs. |
| East Khándesh. | Stone... ... ... Cart-loads. | .... | .. | 3,236 | 431 | .. | .. | .. | .. | 3,236 | 431 |
| | Do. ... ... ... Cubic feet. | .... | .. | 162,278 | 406 | .. | .. | .. | .. | 162,278 | 406 |
| | Manure ... ....Cart-loads. | .... | | 515 | 161 | .. | .. | .. | .. | 515 | 161 |
| | Green stones ... Do. | .... | .. | 11 | 66 | .. | .. | .. | .. | 11 | 66 |
| | Earth... .... ... Do. | .... | .. | 25 | 3 | .. | .. | .. | .. | 25 | 3 |
| | Rosha oil stills ... No. | .... | .. | 13 | 388 | .. | .. | .. | .. | 13 | 388 |
| | Anjan leaves ... Head-loads. | .... | .. | 12 | 1 | .. | .. | .. | .. | 12 | 1 |
| | Mango fruits ... ... ... | .... | .. | .. | 4 | .. | .. | .. | .. | .. | 4 |
| | Miscellaneous ... ... ... | .... | .. | .. | 10 | .. | .. | .. | .. | .. | 10 |
| | Grass and grazing... ... ... | .... | .. | .. | 77,183 | .. | .. | .. | .. | .. | 77,183 |
| | Total ... | .... | .. | .. | 78,653 | .. | .. | .. | .. | .. | 78,653 |
| West Khándesh. | Thorns ... ... Cart-loads. | .... | .. | 433 | 32 | .. | .. | .. | .. | 433 | 32 |
| | Anjan leaves ... Do. | .... | .. | 591 | 148 | .. | .. | .. | .. | 591 | 148 |
| | Do. ... ... Head-loads | .... | .. | 901 | 28 | .. | .. | .. | .. | 901 | 28 |
| | Limestone ... ... Cart-loads. | .... | .. | 236 | 29 | .. | .. | .. | .. | 236 | 29 |
| | Stone ... ... ... Do. | .... | .. | 2,087 | 255 | .. | .. | .. | .. | 2,087 | 255 |
| | Earth... ... ... Do. | .... | .. | 1,906 | 238 | .. | .. | .. | .. | 1,906 | 238 |
| | Reeds... ... ... Do. | .... | .. | 1,424 | 178 | .. | .. | .. | .. | 1,424 | 178 |
| | Do. ... ... ... Head-loads | .... | .. | 172 | 2 | .. | .. | .. | .. | 172 | 2 |
| | Karvi... ... ... Cart-loads. | .... | .. | 393 | 49 | .. | .. | .. | .. | 393 | 49 |
| | Do. ... ... ... Head-loads | .... | .. | 4 | 1 | .. | .. | .. | .. | 4 | 1 |
| | Chilhar ... ... Cart-loads. | .... | .. | 2 | 2 | .. | .. | .. | .. | 2 | 2 |
| | Manure ... ... Do. | .... | .. | 1,354 | 694 | .. | .. | .. | .. | 1,354 | 694 |
| | Mango fruits ... ... .... | .... | .. | .. | 175 | .. | .. | .. | .. | .. | 175 |
| | Rosha oil stills ... No | .... | .. | 154 | 15,655 | .. | .. | .. | .. | 154 | 15,655 |
| | Grass and grazing ... ... | .... | .. | .. | 1,12,709 | .. | .. | .. | .. | .. | 1,12,709 |
| | Total ... | .... | .. | .. | 1,30,195 | .. | .. | .. | .. | .. | 1,30,195 |
| Násik. | Kárvi ... ... Head-loads. | .... | .. | 11,355 | 171 | .. | .. | .. | .. | 11,355 | 171 |
| | Thorns ... ... Cart-loads. | .... | .. | 395 | 120 | .. | .. | .. | .. | 395 | 120 |
| | Mango fruits ... ... ... | .... | .. | .. | 50 | .. | .. | .. | .. | .. | 50 |
| | Ráb ... ... ... Head-loads | .... | .. | 3,891 | 105 | .. | .. | .. | .. | 3,891 | 105 |
| | Stone... ... ... Cubic feet. | .... | .. | 35,937 | 180 | 8,035 | 40 | .. | .. | 43,972 | 220 |
| | Earth... ... ... Cart-loads. | .... | .. | 100 | 9 | .. | .. | .. | .. | 100 | 9 |
| | | K. m. lbs. | | | | | | | | K. m. lbs. | |
| | Hirda... ... ... Khandies. | 51 24 22 | 1,412 | 4 | 103 | .. | .. | .. | .. | 55 24 22 | 1,515 |
| | Rosha oil stills .. ... ... | .... | .. | .. | 2,081 | .. | .. | .. | .. | .. | 2,081 |
| | Apta and Tembusni leaves ... | .... | .. | .. | 734 | .. | .. | .. | .. | .. | 734 |
| | Tarwad bark ... ... ... | .... | .. | .. | 61 | .. | .. | .. | .. | .. | 61 |
| | Chilhar bark ... ... ... | .... | .. | .. | 21 | .. | .. | .. | .. | .. | 21 |
| | Grass and grazing ... ... | .... | .. | .. | 54,970 | .. | .. | .. | .. | .. | 54,970 |
| | Total ... | .... | 1,412 | .. | 58,605 | .. | 40 | .. | .. | .. | 60,057 |
| Ahmednagar. | | K. m. lbs. | | | | | | | | K. m. lbs. | |
| | Hirda nuts ... ... Khandies. | 154 0 20 | 4,238 | .. | .. | .. | .. | .. | .. | 154 0 20 | 4,238 |
| | Stone... ... ... Cart-loads. | .... | .. | 6,092 | 612 | .. | .. | .. | .. | 6,092 | 612 |
| | Earth ... ... Do. | .... | .. | 120 | 4 | .. | .. | .. | .. | 120 | 4 |
| | Kárvi .. ... ... Head-loads. | .... | .. | 1,590 | 50 | .. | .. | .. | .. | 1,590 | 50 |
| | Wild fruits ... ... ... | .... | .. | .. | 86 | .. | .. | .. | .. | .. | 86 |
| | Babool pods ... ... ... | .... | .. | .. | 450 | .. | .. | .. | .. | .. | 450 |
| | Miscellaneous ... ... ... | .... | .. | .. | 20 | .. | .. | .. | .. | .. | 20 |
| | Grass and grazing ... ... | .... | .. | .. | 40,717 | .. | .. | .. | .. | .. | 40,717 |
| | Total ... | .... | 4,238 | .. | 41,939 | .. | .. | .. | .. | .. | 46,177 |
| Poona. | | | | K. m. lbs. | | | | | | K. m. lbs. | |
| | Hirda nuts ... ... ... ... | .... | .. | 139 9 27 | 2,938 | .. | .. | .. | .. | 139 9 27 | 2,938 |
| | Shikakai ... ... ... | .... | .. | .. | 277 | .. | .. | .. | .. | .. | 277 |
| | Tarwad bark ... ... ... | .... | .. | .. | 839 | .. | .. | .. | .. | .. | 839 |
| | Stone ... ... ... Cart-loads. | .... | .. | 359 | 109 | .. | .. | .. | .. | 359 | 109 |
| | Earth... ... ... Cubic feet. | .... | .. | 135 | | .. | .. | .. | .. | 135 | |
| | Toddy fee. ... ... ... | .... | .. | .. | 32 | .. | .. | .. | .. | .. | 32 |
| | Miscellaneous ... ... ... | .... | .. | .. | 52 | .. | .. | .. | .. | .. | 52 |
| | Grass and grazing ... ... | .... | .. | .. | 44,322 | .. | .. | .. | .. | .. | 44,322 |
| | Total ... | .... | .. | .. | 48,569 | .. | .. | .. | .. | .. | 48,569 |
| Sátára. | | K. m. lbs | | | | | | | | K. m. lbs. | |
| | Hirda... ... ... Khandies | 1,347 24 10 | 22,337 | .. | .. | .. | .. | .. | .. | 1,347 24 10 | 22,337 |
| | Babool bark ... Cubic feet. | 700 | 16 | .. | .. | .. | .. | .. | .. | 700 | 16 |
| | Shikakai ... ... ... ... | .... | .. | .. | 1,350 | .. | .. | .. | .. | .. | 1,350 |
| | Brush wood... ... Head-loads | .... | .. | 16 | 1 | .. | .. | .. | .. | 16 | 1 |
| | Stone... ... ... Cart-loads. | .... | .. | 9,859 | 631 | .. | .. | .. | .. | 9,859 | 631 |
| | Earth ... ... Do.. | .... | .. | 22 | 4 | .. | .. | .. | .. | 22 | 4 |
| | Tarward ... ... ... ... | .... | .. | .. | 127 | .. | .. | .. | .. | .. | 127 |
| | Fruits ... ... ... ... | .... | .. | .. | 14 | .. | .. | .. | .. | .. | 14 |
| | Aloe ... ... ... Head-loads. | .... | .. | 70 | 4 | .. | .. | .. | .. | 70 | 4 |
| | Thorns ... ... Do. | .... | .. | 2,197 | 160 | .. | .. | .. | .. | 2,197 | 160 |
| | Kárvi ... ... ... ... | .... | .. | .. | 1 | .. | .. | .. | .. | .. | 1 |
| | Manure. ... ... ... ... | .... | .. | .. | 2 | .. | .. | .. | .. | .. | 2 |
| | Hirda (confiscated) ... ... | .... | .. | .. | 4 | .. | .. | .. | .. | .. | 4 |
| | Miscellaneous ... ... ... | .... | .. | .. | 44 | .. | .. | .. | .. | .. | 44 |
| | Dry leaves ... ... Head-loads. | .... | .. | 3 | 1 | .. | .. | .. | .. | —3 | 1 |
| | Grass and grazing ... ... | .... | .. | .. | 28,864 | .. | .. | .. | .. | .. | 28,864 |
| | Total ... | .... | 22,353 | .. | 31,207 | .. | .. | .. | .. | .. | 53,560 |
| Sholápur. | Toddy fee ... ... ... ... | .... | .. | .. | 5 | .. | .. | .. | .. | .. | 5 |
| | Earth ... ... Cubic feet. | .... | .. | 270 | 2 | .. | .. | .. | .. | 270 | 2 |
| | Tamarind fruit ... ... ... | .... | .. | .. | 24 | .. | .. | .. | .. | .. | 24 |
| | Sand ... ... ... Cubic feet. | .... | .. | 60,250 | 38 | .. | .. | .. | .. | 60,250 | 38 |
| | Stone ... ... Do. | .... | .. | 36,720 | 143 | .. | .. | .. | .. | 36,720 | 143 |
| | Mango fruit ... ... ... | .... | .. | .. | 15 | .. | .. | .. | .. | .. | 15 |
| | Grass and grazing... ... ... | .... | .. | .. | 27,446 | .. | .. | .. | .. | .. | 27,446 |
| | Total ... | .... | .. | .. | 27,673 | .. | .. | .. | .. | .. | 27,673 |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

B 1106—23 c.c.

# FORM No. 59.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1893-94.*

| Particulars. | Number or Quantity. | Cubic feet. | Total of each head. Number or Quantity. | Total of each head. Cubic feet. | Particulars. | Number or Quantity. | Cubic feet. | Total of each head. Number or Quantity. | Total of each head. Cubic feet. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | **TIMBER.** | | | | |
| *Balance at the commencement of the year.* | | | | | *Sold locally.* | | | | |
| West Khándesh... Teak logs and rafters ... | 14,164 | ..... | 22,473 | 18,296 | Teak logs and rafters ... ... ... | 73,618 | 77,687 | | |
| West Khándesh... Do. pieces ... | 8,309 | ..... | | | Do. pieces ... ... ... ... | 181,667 | 147,077 | | |
| Násik ... ... Do. logs and rafters ... | 21 | ..... | 21 | 126 | Jámbul rafters ... ... ... ... | 6,181 | 16,032 | 261,466 | 240,796 |
| Ahmednagar ... Do. do. ... | 21 | ..... | 21 | 40 | *Returned to the owner.* | | | | |
| Sátára ... ... Do. pieces ... | 2,595 | ..... | 2,595 | 1,905 | Teak pieces. ... ... ... ... | 768 | 768 | | |
| | | | 25,110 | 20,367 | | | | 768 | 768 |
| *Received from the Forests in Depôts.* | | | | | *Used by the Department.* | | | | |
| Teak logs and rafters ... ... ... | 60,324 | 68,743 | | | Teak pieces ... ... .... ... | 4,491 | 147 | | |
| Do. pieces ... ... ... ... | 197,099 | 162,335 | | | | | | 4,491 | 147 |
| Jámbul rafters ... ... ... ... | 6,181 | 16,032 | | | | | | | |
| | | | 263,604 | 247,110 | *Lost or written off.* | | | | |
| | | | | | Teak pieces ... ... ... ... | 1,021 | 241 | | |
| | | | | | Do. rafters ... ... ... ... | 21 | 126 | | |
| | | | | | | | | 1,042 | 367 |
| | | | | | | | | 267,767 | 242,078 |
| | | | | | *Balance at the close of the year.* | | | | |
| | | | | | West Khándesh... Teak pieces ... | 19,013 | 19,013 | 19,013 | 19,013 |
| | | | | | Násik ... ... Do. rafters ... | 870 | 5,220 | 870 | 5,220 |
| | | | | | Ahmednagar ... Do. do. ... | 21 | 40 | 21 | 40 |
| | | | | | Sátára ... ... Teak pieces ... | 1,043 | 1,126 | 1,043 | 1,126 |
| | | | | | Total, Balance ... | ... | ..... | 20,947 | 25,399 |
| Total ... | ... | ..... | 288,714 | 267,477 | Total ... | ... | ..... | 288,714 | 267,477 |

FORM No. 59—*continued.*

| Particulars. | Number or Quantity. | Cubic feet. | Total of each head. Number or Quantity. | Total of each head. Cubic feet. | Particulars. | Number or Quantity. | Cubic feet. | Total of each head. Number or Quantity. | Total of each head. Cubic feet. |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | FIREWOOD. | | | | |
| *Balance at the commencement of the year.* | | | | | *Sold locally.* | | | | |
| East Khándesh ... Firewood... Kh. | 3,272 | 147,240 | 3,272 | 147,240 | Firewood ... ... ... Kh. | 11,828 | 1,601,375 | | |
| West Khándesh... Do. ... ... | ... | 19,768 | ... | 19,768 | | | | 11,828 | 1,601,375 |
| Násik ... ... Do. ... ... | ... | 673 | ... | 673 | *Sold on permits.* | | | | |
| Ahmednagar ... Do. ... ... | ... | 74 | ... | 74 | | | | | |
| Sátára ... ... Do. ... ... | ... | 17,470 | ... | 17,470 | Firewood ... ... ... Kh. | 2,909 | 130,905 | | |
| Sholápur... ... Do. ... ... | ... | 17 | ... | 17 | | | | 2,909 | 130,905 |
| | | | 3,272 | 185,242 | *Used by the Department.* | | | | |
| *Received from the Forests in Depôts.* | | | | | | | | | |
| Firewood... ... Khandies... ... | 13,380 | 1,753,510 | 13,380 | 1,753,510 | Firewood ... ... ... ... | ... | 1,350 | ... | 1,350 |
| | | | | | *Free Grants.* | | | | |
| | | | | | Firewood ... ... ... ... | ... | 8,224 | ... | 8,224 |
| | | | | | *Lost or written off.* | | | | |
| | | | | | Firewood ... ... ... ... | ... | 14,558 | ... | 14,558 |
| | | | | | | | | 14,737 | 1,756,412 |
| | | | | | *Balance at the close of the year.* | | | | |
| | | | | | East Khándesh ... Firewood Kh. | 1,915 | 86,175 | 1,915 | 86,175 |
| | | | | | West Khándesh... do. ... | ... | 15,291 | ... | 15,291 |
| | | | | | Násik ... ... do. ... | ... | 3,825 | ... | 3,825 |
| | | | | | Ahmednagar ... do. ... | ... | 10 | ... | 10 |
| | | | | | Sátára ... ... do. ... | ... | 77,039 | ... | 77,039 |
| | | | | | Total, Balance ... | ... | ..... | 1,915 | 182,340 |
| Total ... ... | ..... | | 16,652 | 1,938,752 | Total ... | ... | ..... | 16,652 | 1,938,752 |

## OTHER MINOR PRODUCE.

| *Balance at the commencement of the year.* | Bags. | K. m. lbs. | | K. m. lbs. | *Sold locally.* | | K. m. lbs. | | K. m. lbs. |
|---|---|---|---|---|---|---|---|---|---|
| East Khándesh ... Seed ... ... | 120 | ..... | 120 | ..... | Hirda ... ... ... ... ... | ... | 1,553 24 24 | ... | 1,553 24 24 |
| Násik ... ... Do. ... ... | ... | 1 19 4 | ... | 1 19 4 | | | | | |
| Ahmednagar ... Seed ... ... | ... | 148 3 7 | | | *Used by the Department.* | | | | |
| Hirda ... ... | ... | 18 20 13 | | | | | | | |
| | | | ... | 166 23 20 | Hirda ... ... ... ... ... | ... | 9 4 9 | | |
| Sátára ... ... Do. ... ... | ... | 208 9 6 | | | | Bags. | | Bags. | |
| Seed ... ... | ... | 55 17 19 | | | Seeds ... ... ... ... ... | 120 | 509 10 9 | 120 | 518 14 18 |
| | | | ... | 263 26 25 | | | | | |
| Sholápur... ... Do. ... ... | ... | 7 25 12 | ... | 7 25 12 | | | | | |
| | | | 120 | 440 11 5 | *Lost or written off.* | | | | |
| | | | | | Hirda ... ... ... ... ... | ... | 225 12 14 | ... | 225 12 14 |
| *Received from the Forests in Depôts.* | | | | | | | | ... | 2,297 24 0 |
| Hirda ... ... ... ... ... | ... | 1,980 25 21 | ... | ..... | | | | | |
| | Bags. | | Bags. | | | | | | |
| Seed ... ... ... ... ... | 52 | 523 9 20 | 52 | 2,504 7 13 | *Balance at the close of the year.* | | | | |
| | | | | | | Bags. | | Bags. | |
| | | | | | East Khándesh ... Seed ... ... | 52 | 2 15 7 | 52 | 2 15 7 |
| | | | | | West Khándesh... Do. ... ... | ... | 87 16 9 | ... | 87 16 9 |
| | | | | | Násik ... ... Hirda ... ... | ... | 27 4 1 | ... | 27 4 1 |
| | | | | | Ahmednagar ... Hirda ... ... | ... | 68 25 8 | | |
| | | | | | Seed ... ... | ... | 41 21 1 | ... | 110 18 9 |
| | | | | | Poona ... ... Do. ... ... | ... | 48 13 10 | ... | 48 13 10 |
| | | | | | Sátára ... ... Seed ... ... | ... | 44 22 4 | | |
| | | | | | Hirda ... ... | ... | 325 1 16 | ... | 369 23 20 |
| | | | | | Sholápur ... Seed ... ... | ... | 0 15 18 | ... | 0 15 18 |
| | | | | | Total, Balance ... | ... | ..... | Bags. 52 | 646 22 18 |
| Total ... | ... | ..... | Bags. 172 | 2,944 18 18 | Total ... | ... | ..... | Bags. 172 | 2,944 18 18 |

*Camp Poona,*
*Dated, 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

# FORM No. 60.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1893-94.*

| Description of Timber and other Produce. | On hand at commencement of the year. | | | On hand at close of the year. | | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | No. | Cubic feet. | Value. | No. | Cubic feet. | Value. | In favour of the year. | Against the year. | |
| | | | Rs. | | | Rs. | Rs. | Rs. | |
| ***East Khándesh.*** | | | | | | | | | |
| Firewood ... ... | Kh. 3,272 | 1,47,240 | 1,639 | 1,915 | 86,175 | 1,060 | ... | ... | |
| Seed ... ... ... | Bags. 120 | ..... | ... | Bags. 52 | Kh. m. lbs. 2 15 14 | ... | ... | ... | |
| Total ... | ..... | ..... | 1,639 | ... | ..... | 1,060 | ... | 579 | |
| ***West Khándesh.*** | | | | | | | | | |
| Teak pieces ... ... | 8,309 | 4,132 | 8,000 | Teakpieces 19,013 | 19,013 | 2,000 | ... | ... | |
| Do. rafters ... ... | 14,164 | 14,164 | | | | | | | |
| Firewood ... ... | ..... | 19,768 | 349 | ... | 15,291 | 200 | ... | ... | |
| Seed ... ... ... | ..... | ..... | ... | ... | Kh. m. lbs. 87 16 9 | ... | ... | ... | |
| Total ... | ..... | ..... | 8,349 | ... | ..... | 2,200 | ... | 6,149 | |
| ***Násik.*** | | | | | | | | | |
| Teak rafters ... ... | 21 | 126 | 21 | 870 | 5,220 | 870 | ... | ... | |
| Firewood ... ... | ..... | ..... | ... | ... | 3,825 | 40 | ... | ... | |
| Seed ... ... ... | ..... | Kh. m. lbs. 1 19 4 | 25 | ... | Kh. m. lb. 27 4 1 | 675 | ... | ... | |
| Total ... | ..... | ..... | 46 | ... | ..... | 1,585 | 1,539 | ... | |
| ***Ahmednagar.*** | | | | | | | | | |
| Teak rafters ... ... | 21 | 40 | 10 | 21 | 40 | 10 | ... | ... | |
| Firewood ... ... | ..... | 74 | 8 | ... | 10 | 1 | ... | ... | |
| Hirda ... ... ... | ..... | Kh. m. lbs. 18 20 13 | 3 | ... | Kh. m. lbs. *68 25 8 | ... | ... | ... | * Dryage. |
| Seed ... ... ... | ..... | 148 3 7 | ... | ... | 41 21 1 | ... | ... | ... | |
| Total ... | ..... | ..... | 21 | ... | ..... | 11 | ... | 10 | |
| ***Sátára.*** | | | | | | | | | |
| Teak pieces ... ... | 2,595 | 1,905 | 303 | 1,043 | 1,126 | 236 | ... | ... | |
| Junglewood pieces ... | | | | | | | | | |
| Firewood ... ... | ..... | 17,470 | 392 | ... | 77,039 | 1,728 | ... | ... | |
| Hirda nuts ... ... | ..... | Kh. m. lbs. 208 9 6 | 22 | ... | Kh. m. lbs. †325 1 16 | ... | ... | ... | † To be written off. |
| Seeds ... ... ... | ..... | 55 17 19 | ... | ... | 44 22 4 | ... | ... | ... | |
| Total ... | ..... | ..... | 717 | ... | ..... | 1,964 | 1,247 | ... | |
| ***Sholápur.*** | | | | | | | | | |
| Firewood ... ... | ..... | 17 | 1 | ... | ..... | ... | ... | ... | |
| Seed ... ... ... | ..... | Kh. m. lbs. 7 25 12 | ... | ... | Kh. m. lbs. 0 15 18 | ... | ... | ... | |
| Total ... | ..... | ..... | 1 | ... | ..... | ... | ... | 1 | |
| Grand Total ... | ..... | ..... | 10,773 | ... | ..... | 6,820 | 2,786 | 6,739 | |

Net difference against the year Rs. 3,953.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

*Camp Poona,*
*Dated 29th December 1894.*

# FORM No. 60A.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1893-94.*

| Description of Timber and other Produce. | On hand at commencement of the year. | | On hand at close of the year. | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|
| | Number. | Value. | Number. | Value. | In favour of the year. | Against the year. | |
| *Direction.* | | Rs. | | Rs. | Rs. | Rs. | |
| Office tent ... ... ... ... | 1 | 541 | 1 | 541 | ... | ... | |
| Rahuti ... ... ... ... | 1 | 95 | 1 | 95 | ... | ... | |
| Tools, plant and office furniture ... | ... | 1,120 | ... | 1,120 | ... | ... | |
| Total ... | ... | 1,756 | ... | 1,756 | ... | ... | |
| *East Khándesh.* | | | | | | | |
| Office tent ... ... ... ... | 1 | 248 | 1 | 248 | ... | ... | |
| Great coats... ... ... ... | 192 | 1,254 | 192 | 1,254 | ... | ... | |
| Tools, plant and office furniture ... | ... | 1,007 | ... | 1,188 | ... | ... | |
| Total ... | ... | 2,509 | ... | 2,690 | 181 | ... | |
| *West Khándesh.* | | | | | | | |
| Office tent ... ... ... ... | 1 | 387 | 1 | 387 | ... | ... | |
| Cabul pal ... ... ... ... | 1 | 126 | 1 | 126 | ... | ... | |
| Great coats... ... ... ... | 219 | 1,428 | 219 | 1,428 | ... | ... | |
| Tools, plant and office furniture ... | ... | 6,040 | ... | *5,136 | ... | ... | * Rs. 1,104 value of muskets long since returned to store now deducted. |
| Bungalow at Laling ... ... | ... | ... | 1 | 2,000 | ... | ... | |
| Total ... | ... | 7,981 | ... | 9,077 | 1,096 | ... | |
| *Násik.* | | | | | | | |
| Office tents ... ... ... ... | 2 | 544 | 2 | 544 | ... | ... | |
| Great coats ... ... ... ... | 303 | 1,976 | 303 | 1,976 | ... | ... | |
| Tools, plant and office furniture ... | ... | 258 | ... | 508 | ... | ... | |
| Total ... | ... | 2,778 | ... | 3,028 | 250 | ... | |
| *Ahmednagar.* | | | | | | | |
| Office tent ... ... ... ... | 1 | 387 | 1 | 387 | ... | ... | |
| Office room, Range Forest Officer, Karjat ... ... ... ... | 1 | 214 | 1 | 214 | ... | ... | |
| Hirda depôt at Shinganwadi ... | 1 | 25 | 1 | 25 | ... | ... | |
| Forest rest-houses ... ... ... | 3 | 90 | 3 | 90 | ... | ... | |
| Great coats... ... ... ... | 208 | 1,357 | 208 | 1,357 | ... | ... | |
| Tools, plant and office furniture ... | ... | 1,133 | ... | 1,133 | ... | ... | |
| Total ... | ... | 3,206 | ... | 3,206 | ... | ... | |

FORM No. 60A—*continued.*

| Description of Timber and other Produce. | On hand at Commencement of the year. | | On hand at close of the year. | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|
| | Number. | Value. | Number. | Value. | In favour of the year. | Against the year. | |
| | | Rs. | | Rs. | Rs. | Rs. | |
| *Poona.* | | | | | | | |
| Office tent ... ... ... ... | 1 | 433 | 1 | 433 | ... | ... | |
| Rahuti ... .... ... ... | 1 | 80 | 1 | 80 | ... | ... | |
| Range Forest offices ... ... | 9 | 14,134 | 9 | 14,134 | ... | ... | |
| Great coats... ... ... ... | 315 | 2,054 | 315 | 2,054 | ... | ... | |
| Tools, plant and office furniture ... | ... | 1,131 | ... | 1,266 | ... | ... | |
| Total ... | ... | 17,832 | ... | 17,967 | 135 | ... | |
| *Sátára.* | | | | | | | |
| Bungalow at Malcompeth ... | 1 | 700 | 1 | 700 | ... | ... | |
| Office tent ... ... ... ... | 1 | 433 | 1 | 433 | ... | ... | |
| Cabul pal ... ... ... ... | 1 | 111 | 1 | 111 | ... | ... | |
| Great coats... ... ... ... | 246 | 1,606 | 246 | 1,606 | ... | ... | |
| Tools, plant and office furniture ... | ... | 1,078 | ... | 1,596 | ... | ... | |
| Forest Range office at Malcompeth. | ... | ... | 1 | 3,569 | ... | ... | |
| Hirda depôt at Malcompeth ... | ... | ... | 1 | 2,109 | ... | ... | |
| Total ... | ... | 3,928 | ... | 10,124 | 6,196 | ... | |
| *Sholápur.* | | | | | | | |
| Office tent ... ... ... ... | 1 | 387 | 1 | 387 | ... | ... | |
| Great coats... ... ... ... | 119 | 777 | 119 | 777 | ... | ... | |
| Tools, plant and office furniture ... | ... | 6,085 | ... | 6,085 | ... | ... | |
| Total ... | ... | 7,249 | ... | 7,249 | ... | ... | |
| Grand Total ... | ... | 47,239 | ... | 55,097 | 7,858 | ... | |

Net difference in favour of the year Rs. 7,858.

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

# FORM No. 61.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Summary of Revenue and Expenditure of the different Divisions for the Forest year 1893-94 (from 1st July 1893 to 30th June 1894).*

| Budget Heads. | Direction. | East Khándesh Division. | West Khándesh Division. | Násik Division. | Ahmednagar Division. | Poona Division. | Sátára Division. | Sholápur Division. | Working Plans Division. | Total for the Forest year 1893-94. |
|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | | | | | |
| *a.* Timber | ..... | 12,759 13 3 | 72,453 12 9 | 754 2 0 | 6,806 5 0 | 3,172 2 0 | 14,084 4 0 | ..... | ..... | 1,10,030 7 0 |
| *b.* Firewood and charcoal | ..... | 15,805 10 6 | 13,086 3 0 | 1,412 0 0 | 604 4 6 | 1,149 11 0 | 5,695 1 3 | 261 5 0 | ..... | 38,014 3 3 |
| *c.* Bamboos | ..... | ..... | 75 0 0 | ..... | ..... | ..... | ..... | ..... | ..... | 75 0 0 |
| *d.* Sandalwood | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 8 0 0 | ..... | 8 0 0 |
| *e.* Grass and other minor produce | ..... | ..... | ..... | 1,412 3 8 | 4,238 0 0 | ..... | 22,352 10 3 | ..... | ..... | 28,002 13 11 |
| Total I. | ..... | 28,565 7 9 | 85,614 15 9 | 3,578 5 8 | 11,648 9 6 | 4,321 13 0 | 42,131 15 6 | 269 5 0 | ..... | 1,76,130 8 2 |
| *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | | | | | | |
| *a.* Timber | ..... | 2,017 13 0 | 18,997 4 0 | 76,163 14 3 | 190 1 5 | 22,139 8 0 | 11,677 11 2 | 4,570 0 0 | ..... | 1,35,756 3 10 |
| *b.* Firewood and charcoal | ..... | 7,895 10 3 | 8,640 12 6 | 5,948 1 0 | 3,450 13 6 | 9,256 7 0 | 153 8 7 | 213 10 6 | ..... | 35,558 15 4 |
| *c.* Bamboos | ..... | 8,159 9 11 | 1,819 12 4 | 3,743 15 3 | 141 9 6 | 1,129 0 3 | 401 0 0 | ..... | ..... | 15,394 15 3 |
| *d.* Grazing and fodder grass | ..... | 77,183 0 9 | 1,12,708 11 9 | 54,969 13 8 | 40,717 2 0 | 44,321 12 3 | 28,864 6 9 | 27,446 6 7 | ..... | 3,86,211 5 9 |
| *e.* Other minor produce | ..... | 1,470 5 9 | 17,486 12 6 | 3,635 7 11 | 1,222 1 6 | 4,246 13 7 | 2,342 5 10 | 226 5 3 | ..... | 30,630 4 4 |
| Total II. | ..... | 96,726 7 8 | 1,59,653 5 1 | 1,44,461 4 1 | 45,721 11 11 | 81,093 9 1 | 43,439 0 4 | 32,456 6 4 | ..... | 6,03,551 12 6 |
| *III.—Drift and Waif Wood and confiscated Forest Produce* | ..... | 348 5 6 | 1,108 12 6 | 213 3 0 | 338 6 11 | 450 12 6 | 335 10 9 | 11 14 9 | ..... | 2,807 1 11 |
| Total III. | ..... | 348 5 6 | 1,108 12 6 | 213 3 0 | 338 6 11 | 450 12 6 | 335 10 9 | 11 14 9 | ..... | 2,807 1 11 |
| *IV.—Revenue from Forests not managed by Government—* | | | | | | | | | | |
| *a.* Duty on foreign timber and other forest produce | ..... | 11,099 10 9 | 11,612 11 0 | ..... | ..... | 44 0 0 | ..... | ..... | ..... | 22,756 5 9 |
| *b.* Revenue from shared and private forests | ..... | ..... | ..... | 69 2 0 | ..... | 522 5 7 | ..... | ..... | ..... | 591 7 7 |
| Total IV | ..... | 11,099 10 9 | 11,612 11 0 | 69 2 0 | ..... | 566 5 7 | ..... | ..... | ..... | 23,347 13 4 |
| *V.—Miscellaneous—* | | | | | | | | | | |
| *a.* Fines and forfeitures | ..... | 5 4 0 | ..... | 593 5 9 | 154 13 0 | 431 11 2 | 200 3 7 | 32 12 10 | ..... | 1,418 2 4 |
| *b.* Refunds | 22 15 6 | 6 8 6 | 6 5 5 | 10 8 7 | 240 13 7 | 81 12 8 | 65 4 8 | 37 9 5 | ..... | 471 14 4 |
| *c.* Other sources | 0 6 0 | 1,247 7 6 | 1,357 3 0 | 681 4 0 | 1,484 2 5 | 740 9 0 | 688 1 8 | 343 0 11 | ..... | 6,442 2 6 |
| Total V. | 23 5 6 | 1,259 4 0 | 1,363 8 5 | 1,285 2 4 | 1,879 13 0 | 1,254 0 10 | 953 9 11 | 313 7 2 | ..... | 8,332 3 2 |
| Grand Total Revenue | 23 5 6 | 1,37,999 3 8 | 2,59,353 4 9 | 1,49,607 1 1 | 59,588 9 4 | 87,686 9 0 | 86,860 4 6 | 33,051 1 3 | ..... | 8,14,169 7 1 |

## FORM No. 61—*continued.*

| Budget Heads. | Direction. | East Khándesh Division. | West Khándesh Division. | Násik Division. | Ahmednagar Division. | Poona Division. | Sátára Division. | Sholápur Division. | Working Plans Division. | Total for the Forest year 1893-94. |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| EXPENDITURE. | | | | | | | | | | |
| A.—Conservancy and Works. | | | | | | | | | | |
| *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | | | | | |
| *a*, Timber ... ... ... ... ... | ..... | 1,158 4 6 | 4,194 13 10 | 115 4 0 | 975 12 5 | 557 13 6 | 1,470 0 3 | ..... | ..... | 8,472 0 6 |
| *b*. Firewood and charcoal ... ... ... | ..... | 3,623 13 0 | 2,679 2 9 | 250 0 0 | 1 0 0 | 219 15 6 | 3,597 14 1 | 14 7 0 | ..... | 10,386 4 4 |
| *c*. Bamboos ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *d* Sandalwood ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *e*. Grass and other minor produce ... ... | ..... | ..... | ..... | 44 5 6 | 1,182 3 9 | 36 14 8 | 11,616 10 6 | ..... | ..... | 12,880 2 5 |
| Total A, I. ... | ..... | 4,782 1 6 | 6,874 0 7 | 409 9 6 | 2,159 0 2 | 814 11 8 | 16,684 8 10 | 14 7 0 | ..... | 31,738 7 3 |
| *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers* ... ... | ..... | 5,626 1 3 | 5,844 0 2 | 3,565 4 3 | 2,863 14 6 | 997 5 0 | 394 12 1 | 754 12 6 | ..... | 20,046 1 9 |
| Total A, II. ... | ..... | 5,626 1 3 | 5,844 0 2 | 3,565 4 3 | 2,863 14 6 | 997 5 0 | 394 12 1 | 754 12 6 | ..... | 20,046 1 9 |
| *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... ... ... | ..... | 8 9 2 | ..... | 12 7 0 | 7 0 0 | 7 5 0 | 1 9 2 | ..... | ..... | 36 14 4 |
| Total A, III. ... | ..... | 8 9 2 | ..... | 12 7 0 | 7 0 0 | 7 5 0 | 1 9 2 | ..... | ..... | 36 14 4 |
| *IV—Revenue from Forests not managed by Government—* | | | | | | | | | | |
| *a*. Duty on foreign timber and other forest produce ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b*. Revenue from shared and private forests... | ..... | 1 12 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 12 0 |
| Total A, IV. ... | ..... | 1 12 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1 12 0 |
| *V—Rent of leased Forests and payments to share-holders in Forests managed by Government* ... | ..... | ..... | ..... | 9 5 8 | 58 13 5 | 870 15 3 | 3,517 1 10 | ..... | ..... | 4,456 4 2 |
| Total A, V. ... | ..... | ..... | ..... | 9 5 8 | 58 13 5 | 870 15 3 | 3,517 1 10 | ..... | ..... | 4,456 4 2 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *VI.—Live Stock, Stores, Tools and Plant—* | | | | | | | | | | |
| *a.* Purchase of cattle ... .. ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Feed and keep of cattle ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *c.* Purchase of stores, tools and plant ... | ..... | 175 3 8 | 181 0 0 | 332 10 5 | 19 15 0 | 152 9 9 | 444 5 3 | 38 6 3 | ..... | 1,344 2 4 |
| Total A, VI ... | ..... | 175 3 8 | 181 0 0 | 332 10 5 | 19 15 0 | 152 9 9 | 444 5 3 | 38 6 3 | ..... | 1,344 2 4 |
| *VII.—Communications and Buildings—* | | | | | | | | | | |
| *a.* Roads and bridges ... ... ... | ..... | ..... | 21 11 6 | ..... | ..... | 2 8 0 | ..... | ..... | ..... | 24 3 6 |
| *b.* Buildings ... ... ... ... ... | ..... | 370 3 6 | 1,455 5 3 | 109 9 0 | 28 10 0 | 80 1 3 | 66 8 0 | ..... | ..... | 2,110 5 0 |
| *c.* Other works ... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | 1 3 0 | ..... | ..... | 1 3 0 |
| Total A, VII ... | ..... | 370 3 6 | 1,477 0 9 | 109 9 0 | 28 10 0 | 82 9 3 | 67 11 0 | ..... | ..... | 2,135 11 6 |
| *VIII.—Organization, Improvement and Extension of Forests—* | | | | | | | | | | |
| *a.* Demarcation ... ... ... ... | ..... | 112 8 6 | 246 5 4 | 5,789 9 10 | 577 9 6 | 645 0 3 | 1,076 4 6 | 316 6 9 | ..... | 8,763 12 8 |
| *b.* Cost of settlements; compensation for land and rights... ... ... ... | ..... | ..... | 8,086 2 11 | ..... | 934 1 10 | 1,868 6 10 | 2,587 7 1 | 12 12 0 | ..... | 13,488 14 8 |
| *c.* Surveys ... ... ... ... ... | ..... | ..... | 79 0 0 | ..... | 4,773 8 7 | * 20,202 15 8 | ..... | 3,579 4 4 | ..... | * 28,634 12 7 |
| | | | | | | *—476 1 0 | | —15 12 0 | | *—491 13 0 |
| *d.* Working-plans ... ... ... ... | ..... | 506 14 8 | 492 3 11 | 1,767 10 3 | 300 0 0 | 620 13 2 | 481 6 0 | 490 0 2 | 1,020 0 0 | 5,679 0 2 |
| *e.* Sowing and planting ... ... ... | ..... | 422 12 1 | 536 12 6 | 2,176 12 5 | 1,102 4 3 | 2,273 14 8 | 1,720 12 6 | 911 12 9 | ..... | 9,145 1 2 |
| *f.* Protection from fire ... ... ... | ..... | 299 9 3 | 1,036 2 6 | 96 12 0 | 3 5 0 | 610 12 3 | 11 0 0 | 48 2 0 | ..... | 2,105 11 0 |
| *g.* Other works ... ... ... ... | ..... | 1,878 4 9 | 687 3 0 | 4,453 3 5 | 778 15 0 | 2,699 2 3 | 1,334 4 3 | 1,359 2 0 | ..... | 13,190 2 8 |
| Total A, VIII ... | ..... | 3,220 1 3 | 11,163 14 2 | 14,283 15 11 | 8,469 12 2 | 28,921 1 1 | 7,211 2 4 | 6,717 8 0 | 1,020 0 0 | 81,007 6 11 |
| | | | | | | | | —15 12 0 | | —491 13 0 |
| *IX.—Miscellaneous—* | | | | | | | | | | |
| *a.* Refunds ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Law charges ... ... ... ... | ..... | ..... | ..... | 20 0 0 | ..... | 7 10 0 | 183 7 6 | ..... | ..... | 211 1 6 |
| *c.* Other charges ... ... ... ... | 249 14 0 | 1,062 6 6 | 1,054 12 1 | 241 11 3 | 2,003 10 0 | 1,301 5 0 | 2,053 2 5 | 521 6 7 | ..... | 8,488 3 10 |
| Total A, IX ... | 249 14 0 | 1,062 6 6 | 1,054 12 1 | 261 11 3 | 2,003 10 0 | 1,308 15 0 | 2,236 9 11 | 521 6 7 | ..... | 8,699 5 4 |
| Total A, CONSERVANCY AND WORKS ... | 249 14 0 | 15,246 6 10 | 26,594 11 9 | 18,984 9 0 | 15,610 11 3 | 33,155 8 0 | 30,557 12 5 | 8,046 8 4 | 1,020 0 0 | 1,49,466 1 7 |
| | | | | | | —476 1 0 | | —15 12 0 | | —491 13 0 |

* The total charges for the financial year for surveys being adjusted in March Final 1894, which is included in this account, the difference between the expenditure for April to June 1893 and that for April to June 1894 has been shown here in black ink as communicated by the Superintendent, Forest Surveys, in his Nos. 193, dated 4th August 1893 and 251, dated 4th August 1894. It has not been included in the account current as it will be adjusted in the accounts for March Final 1895 :—

| Expenditure. | Sholápur. Rs. a. p. | Poona. Rs. a. p. | |
|---|---|---|---|
| April to June 1893 ... | 15 12 0 | 4,851 13 11 | |
| April to June 1894 ... | ..... | 4,375 12 11 | |
| Difference ... | —15 12 0 | —476 2 0 | =491 13 0 |

## FORM No. 61—*continued.*

| Budget Heads. | Direction. | East Khándesh Division. | West Khándesh Division. | Násik Division. | Ahmednagar Division. | Poona Division. | Sátára Division. | Sholápur Division. | Working Plans. | Total for the Forest year 1893-94. |
|---|---|---|---|---|---|---|---|---|---|---|
| EXPENDITURE—*continued.* | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| B.—ESTABLISHMENTS. | | | | | | | | | | |
| *I.—Salaries—* | | | | | | | | | | |
| *a.* Conservators ... ... ... ... | 20,820 0 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 20,820 0 0 |
| Exchange Compensation Allowance... | 2,524 6 9 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2,524 6 9 |
| *b.* Superior Officers ... ... ... ... | 2,312 14 5 | 5,260 13 8 | 9,622 5 10 | 15,875 2 4 | 8,560 15 6 | 20,765 13 0 | 10,800 0 0 | 5,450 0 0 | 1,600 0 0 | 80,248 0 9 |
| Exchange Compensation Allowance . | 249 2 7 | ..... | 863 9 9 | 1,280 2 9 | 948 6 7 | 1,912 12 0 | 956 6 8 | 548 7 3 | ..... | 6,758 15 7 |
| *c.* Subordinate Forest and Depôt Establishments ... ... ... ... | ..... | 22,498 15 11 | 22,871 15 0 | 34,090 13 11 | 24,155 2 3 | 34,086 9 6 | 28,057 11 2 | 12,716 1 6 | ..... | 1,78,477 5 3 |
| Exchange Compensation Allowance . | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *d.* Office Establishments ... ... ... | 5,174 0 0 | 2,255 5 6 | 2,407 1 11 | 2,583 13 11 | 1,986 0 8 | 2,445 7 7 | 2,561 12 6 | 1,887 8 6 | 176 0 0 | 21,477 2 7 |
| Exchange Compensation Allowance... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *e.* Deputation and Special Allowances ... | 1,320 14 5 | ..... | ..... | ..... | ..... | 684 2 8 | ..... | ..... | 200 0 0 | 2,205 1 1 |
| Total B, I ... | 32,401 6 2 | 30,015 3 1 | 35,765 0 6 | 53,830 0 11 | 35,650 9 0 | 59,894 12 9 | 42,375 14 4 | 20,602 1 3 | 1,976 0 0 | 3,12,511 0 0 |
| *II.—Travelling Allowances—* | | | | | | | | | | |
| *a.* Conservators ... ... ... ... | 2,400 0 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2,400 0 0 |
| *b.* Superior Officers ... ... ... .. | 658 1 0 | 1,512 13 11 | 2,571 3 6 | 2,829 9 5 | 1,871 10 0 | 2,983 1 7 | 2,531 12 0 | 1,533 7 11 | 300 0 0 | 16,791 11 4 |
| *c.* Subordinate Forest and Depôt Establishments ... ... ... ... | 22 8 0 | 1,693 7 2 | 1,314 12 8 | 1,898 1 10 | 1,525 1 10 | 1,618 12 8 | 1,935 5 5 | 831 5 11 | ..... | 10,839 7 6 |
| *d.* Office Establishments ... ... ... | 1,333 13 8 | 779 6 2 | 814 14 2 | 836 5 1 | 748 12 1 | 773 7 6 | 904 13 0 | 656 7 7 | 54 0 0 | 6,901 15 3 |
| Total B, II ... | 4,414 6 8 | 3,985 11 3 | 4,700 14 4 | 5,564 0 4 | 4,145 7 11 | 5,375 5 9 | 5,371 14 5 | 3,021 5 5 | 354 0 0 | 36,933 2 1 |
| *III.—Contingencies—* | | | | | | | | | | |
| *a.* Stationery ... ... ... ... ... | 12 12 6 | 362 13 5 | 442 14 10 | 627 7 7 | 375 5 2 | 437 10 9 | 522 8 5 | 209 0 2 | ..... | 2,990 8 10 |
| *b.* Carriage of Tents and Records ... ... | 470 9 0 | 137 11 6 | 306 3 6 | 312 15 6 | 239 2 0 | 191 8 6 | 302 6 6 | 165 6 0 | ..... | 2,125 14 6 |
| *c.* Rents, Rates and Taxes ... ... ... | 450 0 0 | 332 0 0 | 303 3 5 | 77 13 4 | 312 0 0 | 124 0 0 | 83 10 8 | 18 0 0 | ..... | 1,700 11 5 |
| *d.* Pay of Police Guards ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *e.* Official Postage ... ... ... ... | 326 5 0 | 693 0 6 | 608 9 0 | 879 1 0 | 581 9 6 | 1,000 0 6 | 1,113 12 6 | 273 3 0 | ..... | 5,475 9 0 |
| *f.* Sundries ... ... ... ... .. | 140 0 3 | 276 11 10 | 326 0 7 | 273 12 6 | 72 5 0 | 303 10 10 | 455 9 5 | 78 14 2 | ..... | 1,927 0 7 |
| Payments to Officers of other Province ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total B, III ... | 1,399 10 9 | 1,802 5 3 | 1,986 15 4 | 2,171 1 11 | 1,580 5 8 | 2,056 14 7 | 2,477 15 6 | 744 7 4 | ..... | 14,219 12 4 |
| Total B, ESTABLISHMENTS ... | 38,215 7 7 | 35,803 3 7 | 42,452 14 2 | 61,565 3 2 | 41,376 6 7 | 67,327 1 1 | 50,225 12 3 | 24,367 14 0 | 2,330 0 0 | 3,63,663 14 5 |
| GRAND TOTAL OF EXPENDITURE ... | 38,465 5 7 | 51,049 10 5 | 69,047 9 11 | 80,549 12 2 | 56,987 1 10 | 1,00,482 9 1<br>—476 1 0 | 80,783 8 8 | 32,414 6 4<br>—15 12 0 | 3,350 0 0 | 5,13,130 0 0<br>—491 13 0 |

No. $\frac{F.}{15507}$

Forwarded to the Conservator of Forests, Central Circle, under Section 267 of the Forest Code.

*Office of the Accountant General, Bombay, dated 8th September 1894.*

O. T. BARROW,
Accountant General.

# FORM No. 62.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Annual Account Current for the Forest year 1893-94.*

| | Rs. a. p. | Rs. a. p. | | Rs. a. p. | Rs. a. p. |
|---|---|---|---|---|---|
| To Opening Balance ... ... ... | ..... | 634 7 7 | 1.—Refunds and Drawbacks—Refunds— Divided Heads, Forest ... ... | ..... | 4,282 2 5 |
| „ VIII.—Assessed Taxes—Income Tax— Deductions by Government from Salaries ... ... | ..... | 3,110 6 1 | 11.—Forest (as per Summary) | ..... | 5,13,130 0 0 |
| „ IX.—Forest (as per Summary) ... | ..... | 8,14,169 7 1 | 19.—Law and Justice— Jails, District Jails, Contingencies ... | ..... | ..... |
| „ XII.—Interest Interest on Arrears of Revenue... | ..... | 148 5 8 | Revenue Deposits (Forests) ... ... | ..... | 28,892 3 8 |
| „ XXV.—Miscellaneous— Provincial— Sale-proceeds of old Stores and Materials ... ... | ..... | 22 12 3 | Cheques and Bills (Forest Cheque cancelled) . | ..... | 776 12 0 |
| Other Press Receipts— Government Central Press ... | ..... | ..... | Advances Recoverable— Forest Advances ... ... | 3,14,681 2 9 | ..... |
| „ Revenue Deposits (Forest) ... ... | ..... | 46,145 15 7 | Tentage Advances ... ... | ..... | ..... |
| „ Cheques and Bills (Departmental cheques), Forest ... ... ... | ..... | 5,03,271 2 3 | Objection Book Advances ... | 590 0 0 | ..... 3,15,271 2 9 |
| „ Advances Recoverable— Forest Advances ... ... | 3,13,963 0 0 | ..... | Cash Recoveries ... ... ... | ..... | 9,712 5 8 |
| Tentage Advances ... ... | ..... | ..... | Forest Remittances— Remittances to Treasuries ... | 8,56,102 15 0 | ..... |
| Objection Book Advances ... ... | 1,930 0 0 | ..... | Inter-divisional Transfers... ... | ..... | ..... |
| | | 3,15,893 0 0 | Inter-departmental Transfers ... | ..... | ..... 8,56,102 15 0 |

FORM No. 62—*continued.*

| | Rs. a. p. | Rs. a. p. | | Rs. a. p. | Rs. a. p. |
|---|---|---|---|---|---|
| To Cash Recoveries ... ... ... | ..... | 9,712 5 8 | Account Current— | | |
| „ Forest Remittances— | | | Accounts between Bombay and Military, Bombay— | | |
| Remittances to Treasuries ... ... | 295 1 3 | ..... | | | |
| Inter-divisional Transfers ... ... | 32,130 12 7 | ..... | IV.—Items adjustable by Military ... | ..... | ..... |
| Inter-departmental Transfers ... | 492 6 1 | ..... | | | |
| | | 32,918 3 11 | Account between Bombay and Public Works Department, Bombay—(Ordinary Branches)— | | |
| „ Bombay Uncovenanted Service Family Pension Fund, Widows' Branch ... | ..... | 2,636 11 0 | | | |
| „ Account between India and Bombay— | | | IV.—Items Adjustable by Public Works Department ... ... | ..... | 8 8 0 |
| III.—Items adjustable by India— | | | | | |
| Bengal Military Fund ... ... | ..... | ..... | | | |
| „ „ Orphan Fund ... | ..... | ..... | Account between Bombay and Public Works Department (Railway Branch), Railway— | | |
| Bengal Uncovenanted Service Family Pension Fund... ... ... | ..... | ..... | | | |
| „ Account between Bombay and Public Works Department, Bombay— | | | IV.—Items adjustable by Public Works Department ... ... | ..... | ..... |
| IV.—Payments into Treasuries by Civil Officers on account of Public Works Department... ... ... | 659 14 5 | ..... | | | |
| Miscellaneous ... | 296 7 11 | 956 6 4 | Closing Balance ... | | 1,443 1 11 |
| Total ... | ..... | 17,29,619 3 5 | Total | ..... | 17,29,619 3 5 |

No. F. 15200

Forwarded to the Conservator of Forests, Central Circle, under Section 267 of the Forest Department Code.

*Accountant General's Office,*
*Bombay, 8th September 1894.*

O. T. BARROW,
Accountant General.

FORM No. 63.

FORM No. 63.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Revenue received and Outstandings on account of Revenue during 1893-94.*

| Division. | Particulars. | Outstandings at commencement of year. | Value of Sales and other Revenue during year. | Total. | Amount realized during year. | Balance due to the Department at end of year. | REMARKS. |
|---|---|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| East Khándesh | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | ..... | 12,759 13 3 | 12,759 13 3 | 12,759 13 3 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 15,805 10 6 | 15,805 10 6 | 15,805 10 6 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *d.* Sandalwood ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *e.* Grass and other minor produce ... | ..... | ..... | ..... | ..... | ..... | |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers.* | | | | | | |
| | *a.* Timber ... ... ... | ..... | 2,017 13 0 | 2,017 13 0 | 2,017 13 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 7,895 10 3 | 7,895 10 3 | 7,895 10 3 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | 8,159 9 11 | 8,159 9 11 | 8,159 9 11 | ..... | |
| | *d.* Grazing and fodder grass ... | ..... | 77,240 12 9 | 77,240 12 9 | 77,183 0 9 | 57 12 0 | |
| | *e.* Other minor produce ... ... | ..... | 1,470 5 9 | 1,470 5 9 | 1,470 5 9 | ..... | |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 348 5 6 | 348 5 6 | 348 5 6 | ..... | |
| | Total ... | ..... | 1,25,698 0 11 | 1,25,698 0 11 | 1,25,640 4 11 | 57 12 0 | |
| West Khándesh. | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | 1,368 11 6 | 72,453 12 9 | 73,822 8 3 | 72,453 12 9 | 1,368 11 6 | |
| | *b.* Firewood and charcoal ... ... | ..... | 13,086 3 0 | 13,086 3 0 | 13,086 3 0 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | 75 0 0 | 75 0 0 | 75 0 0 | ..... | |
| | *d.* Sandalwood ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *e.* Grass and other minor produce ... | ..... | ..... | ..... | ..... | ..... | |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers.* | | | | | | |
| | *a.* Timber ... ... ... | ..... | 18,997 4 0 | 18,997 4 0 | 18,997 4 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 8,640 12 6 | 8,640 12 6 | 8,640 12 6 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | 1,819 12 4 | 1,819 12 4 | 1,819 12 4 | ..... | |
| | *d.* Grazing and fodder grass ... | ..... | 1,12,708 11 9 | 1,12,708 11 9 | 1,12,708 11 9 | ..... | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *e.* Other minor produce ... ... | ..... | | 21,266 | 0 | 6 | 21,266 | 0 | 6 | 17,486 | 12 | 6 | 3,779 | 4 0 |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | | 1,108 | 12 | 6 | 1,108 | 12 | 6 | 1,108 | 12 | 6 | ..... | |
| | Total ... | 1,368 | 11 6 | 2,50,156 | 5 | 4 | 2,51,525 | 0 | 10 | 2,46,377 | 1 | 4 | 5,147 | 15 6 |
| Násik ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | | | | | | | | |
| | *a.* Timber ... ... ... | ..... | | 754 | 2 | 0 | 754 | 2 | 0 | 754 | 2 | 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | | 1,412 | 0 | 0 | 1,412 | 0 | 0 | 1,412 | 0 | 0 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | | ..... | | | ..... | | | ..... | | | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | | ..... | | | ..... | | | ..... | | | ..... | |
| | *e.* Grass and other minor produce ... | 455 | 13 9 | 1,007 | 14 | 8 | 1,463 | 12 | 5 | 1,412 | 3 | 8 | 51 | 8 9 |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | | | | | | | | | |
| | *a.* Timber ... ... ... | ..... | | 76,163 | 14 | 3 | 76,163 | 14 | 3 | 76,163 | 14 | 3 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | | 6,244 | 1 | 0 | 6,244 | 1 | 0 | 5,948 | 1 | 0 | 296 | 0 0 |
| | *c.* Bamboos ... ... ... | ..... | | 3,743 | 15 | 3 | 3,743 | 15 | 3 | 3,743 | 15 | 3 | ..... | |
| | *d.* Grazing and fodder grass ... | 23 | 0 0 | 54,964 | 13 | 8 | 54,987 | 13 | 8 | 54,969 | 13 | 8 | 18 | 0 0 |
| | *e.* Other minor produce ... ... | ..... | | 3,635 | 7 | 11 | 3,635 | 7 | 11 | 3,635 | 7 | 11 | ..... | |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | | 213 | 3 | 0 | 213 | 3 | 0 | 213 | 3 | 0 | ..... | |
| | Total ... | 478 | 13 9 | 1,48,139 | 7 | 9 | 1,48,618 | 5 | 6 | 1,48,252 | 12 | 9 | 365 | 8 9 |
| Ahmednagar ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | | | | | | | | |
| | *a.* Timber ... ... ... | ..... | | 6,806 | 5 | 0 | 6,806 | 5 | 0 | 6,806 | 5 | 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | | 604 | 4 | 6 | 604 | 4 | 6 | 604 | 4 | 6 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | | ..... | | | ..... | | | ..... | | | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | | ..... | | | ..... | | | ..... | | | ..... | |
| | *e.* Grass and other minor produce ... | ..... | | 4,238 | 0 | 0 | 4,238 | 0 | 0 | 4,238 | 0 | 0 | ..... | |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | | | | | | | | | |
| | *a.* Timber ... ... ... | ..... | | 190 | 1 | 5 | 190 | 1 | 5 | 190 | 1 | 5 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | | 3,450 | 13 | 6 | 3,450 | 13 | 6 | 3,450 | 13 | 6 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | | 141 | 9 | 6 | 141 | 9 | 6 | 141 | 9 | 6 | ..... | |
| | *d.* Grazing and fodder grass ... | ..... | | 40,717 | 2 | 0 | 40,717 | 2 | 0 | 40,717 | 2 | 0 | ..... | |
| | *e.* Other minor produce ... ... | ..... | | 1,222 | 1 | 6 | 1,222 | 1 | 6 | 1,222 | 1 | 6 | ..... | |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | | 338 | 6 | 11 | 338 | 6 | 11 | 338 | 6 | 11 | ..... | |
| | Total ... | ..... | | 57,708 | 12 | 4 | 57,708 | 12 | 4 | 57,708 | 12 | 4 | ..... | |

FORM No. 63—*continued.*

| Division. | Particulars. | Outstandings at commencement of year. | Value of sales and other Revenue during year. | Total. | Amount realized during year. | Balance due to the Department at end of year. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Poona ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | ..... | 3,172 2 0 | 3,172 2 0 | 3,172 2 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 1,149 11 0 | 1,149 11 0 | 1,149 11 0 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *d.* Sandalwood... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *e.* Grass and other minor produce ... | ..... | ..... | ..... | ..... | ..... | |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | | |
| | *a.* Timber ... ... ... | ..... | 22,139 8 0 | 22,139 8 0 | 22,139 8 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 9,256 7 0 | 9,256 7 0 | 9,256 7 0 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | 1,129 0 3 | 1,129 0 3 | 1,129 0 3 | ..... | |
| | *d.* Grazing and fodder grass ... | 75 12 0 | 53,093 0 3 | 53,168 12 3 | 44,321 12 3 | 8,847 0 0 | |
| | *e.* Other minor produce ... ... | ..... | 4,551 13 7 | 4,551 13 7 | 4,246 13 7 | 305 0 0 | |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 450 12 6 | 450 12 6 | 450 12 6 | ..... | |
| | Total ... | 75 12 0 | 94,942 6 7 | 95,018 2 7 | 85,866 2 7 | 9,152 0 0 | |
| Sátára ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | ..... | 14,084 4 0 | 14,084 4 0 | 14,084 4 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 5,695 1 3 | 5,695 1 3 | 5,695 1 3 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *e.* Grass and other minor produce ... | ..... | 22,352 10 3 | 22,352 10 3 | 22,352 10 3 | ..... | |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | | |
| | *a.* Timber ... ... ... | ..... | 11,677 11 2 | 11,677 11 2 | 11,677 11 2 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 153 8 7 | 153 8 7 | 153 8 7 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | 401 0 0 | 401 0 0 | 401 0 0 | ..... | |
| | *d.* Grazing and fodder grass ... | ..... | 28,864 6 9 | 28,864 6 9 | 28,864 6 9 | ..... | |
| | *e.* Other minor produce ... ... | ..... | 2,342 5 10 | 2,342 5 10 | 2,342 5 10 | ..... | |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 335 10 9 | 335 10 9 | 335 10 9 | ..... | |
| | Total .. | ..... | 85,906 10 7 | 85,906 10 7 | 85,906 10 7 | ..... | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Sholápur ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | |
| | *a.* Timber ... ... ... | ..... | ..... | ..... | ..... | ..... |
| | *b.* Firewood and charcoal ... ... | ..... | 261 5 0 | 261 5 0 | 261 5 0 | ..... |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... |
| | *d.* Sandalwood ... ... ... | ..... | 8 0 0 | 8 0 0 | 8 0 0 | ..... |
| | *e.* Grasss and other minor produce ... | ..... | ..... | ..... | ..... | ..... |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | |
| | *a.* Timber ... ... ... | ..... | 4,570 0 0 | 4,570 0 0 | 4,570 0 0 | ..... |
| | *b.* Firewood and charcoal ... ... | 3 0 0 | 213 10 6 | 216 10 6 | 213 10 6 | 3 0 0 |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... |
| | *d.* Grazing and fodder grass ... | 1,718 8 0 | 25,727 14 7 | 27,446 6 7 | 27,446 6 7 | ..... |
| | *e.* Other minor produce ... ... | ..... | 226 5 3 | 226 5 3 | 226 5 3 | ..... |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 11 14 9 | 11 14 9 | 11 14 9 | ..... |
| | Total ... | 1,721 8 0 | 31,019 2 1 | 32,740 10 1 | 32,737 10 1 | 3 0 0 |
| Total, Central Circle ... | *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | |
| | *a.* Timber ... ... ... | 1,368 11 6 | 1,10,030 7 0 | 1,11,399 2 6 | 1,10,030 7 0 | 1,368 11 6 |
| | *b.* Firewood and charcoal ... ... | ..... | 38,014 3 3 | 38,014 3 3 | 38,014 3 3 | ..... |
| | *c.* Bamboos ... ... ... | ..... | 75 0 0 | 75 0 0 | 75 0 0 | ..... |
| | *d.* Sandalwood ... ... ... | ..... | 8 0 0 | 8 0 0 | 8 0 0 | ..... |
| | *e.* Grass and other minor produce ... | 455 13 9 | 27,598 8 11 | 28,054 6 8 | 28,002 13 11 | 51 8 9 |
| | *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—* | | | | | |
| | *a.* Timber ... ... ... | ..... | 1,35,756 3 10 | 1,35,756 3 10 | 1,35,756 3 10 | ..... |
| | *b.* Firewood and charcoal ... ... | 3 0 0 | 35,854 15 4 | 35,857 15 4 | 35,558 15 4 | 299 0 0 |
| | *c.* Bamboos ... ... ... | ..... | 15,394 15 3 | 15,394 15 3 | 15,394 15 3 | ..... |
| | *d.* Grazing and fodder grass ... | 1,817 4 0 | 3,93,316 13 9 | 3,95,134 1 9 | 3,86,211 5 9 | 8,922 12 0 |
| | *e.* Other minor produce ... ... | ..... | 34,714 8 4 | 34,714 8 4 | 30,630 4 4 | 4,084 4 0 |
| | *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... | ..... | 2,807 1 11 | 2,807 1 11 | 2,807 1 11 | ..... |
| | Grand Total ... | 3,644 13 3 | 7,93,570 13 7 | 7,97,215 10 10 | 7,82,489 6 7 | 14,726 4 3 |

NOTE.—The revenue under Budget Heads IV and V is Rs. 23,347-13-4 and Rs. 8,332-3-2 respectively. This has not been shown in the statement in detail as there are no outstandings against these heads. The total amount realised during the year is Rs. 8,14,169-7-1.

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

a 1106—27 c. c.

## FORM No. 64.

### FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Outstandings and Liabilities on account of Contractors and Disbursers for the Forest Year 1893-94.*

| Division. | DEPARTMENT DEBTOR. | | | DEPARTMENT CREDITOR. | | | BALANCE DUE. | | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|
| | At commencement of year. | Recoveries in cash and value of supplies and work done during year. | At close of year. | At commencement of year. | Payments made during year. | At close of year. | To Department (Outstandings). | By Department (Liabilities). | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| *Contractors.* | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Násik ... ... ... | ..... | 40 14 10 | 40 14 10 | 40 14 10 | ..... | 40 14 10 | ..... | ... | |
| Total ... | ..... | 40 14 10 | 40 14 10 | 40 14 10 | ..... | 40 14 10 | ..... | ... | |
| *Disbursers.* | | | | | | | | | |
| East Khándesh ... ... | ..... | 34,708 11 11 | 34,708 11 11 | 902 1 1 | 34,534 11 7 | 35,436 12 8 | 728 0 9 | ... | |
| West Khándesh... ... | ..... | 55,911 10 6 | 55,911 10 6 | 2,035 10 4 | 55,554 12 11 | 57,590 7 3 | 1,678 12 9 | ... | |
| Násik ... ... ... | ..... | 57,428 13 9 | 57,428 13 9 | 2,145 7 5 | 56,226 3 9 | 58,371 11 2 | 942 13 5 | ... | |
| Ahmednagar ... ... | ..... | 32,941 12 5 | 32,941 12 5 | 1,465 15 7 | 33,133 12 10 | 34,599 12 5 | 1,658 0 0 | ... | |
| Poona ... ... ... | ..... | 54,970 1 0 | 54,970 1 0 | 1,585 11 11 | 56,616 0 8 | 58,201 12 7 | 3,231 11 7 | ... | |
| Sátára ... ... ... | ..... | 61,333 12 5 | 61,333 12 5 | 1,530 5 2 | 61,888 11 0 | 63,419 0 2 | 2,085 3 9 | ... | |
| Sholápur ... ... ... | ..... | 16,627 3 2 | 16,627 3 2 | 751 12 9 | 16,726 14 0 | 17,478 10 9 | 851 7 7 | ... | |
| Total Disbursers ... | ..... | 3,13,922 1 2 | 3,13,922 1 2 | 10,417 0 3 | 3,14,681 2 9 | 3,25,098 3 0 | 11,176 1 10 | ... | |
| Grand Total ... | ..... | 3,13,963 0 0 | 3,13,963 0 0 | 10,457 15 1 | 3,14,681 2 9 | 3,25,139 1 10 | 11,176 1 10 | ... | |

*Accountant General's Office, Bombay,*
*Dated 8th September 1894.*

No. F. 16199

Forwarded to the Conservator of Forests, Central Circle, under Section 267 of the Forest Department Code.

O. T. BARROW,
Accountant General.

# FORM No. 65.

## FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

*Financial Results of the year 1893-94.*

| Division. | TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY. | | OTHER REVENUE. | | FORMATION, PROTECTION, AND IMPROVEMENT OF FORESTS. | TOTAL. | | REMARKS. |
|---|---|---|---|---|---|---|---|---|
| | Receipts. | Charges. | Receipts. | Charges. | Charges. | Receipts. | Charges. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| East Khándesh ... | 28,565 | 7,208 | 1,09,434 | 8,063 | 43,104 | 1,37,999 | 58,375 | |
| West Khándesh ... | 85,615 | 10,513 | 1,73,738 | 9,484 | 60,041 | 2,59,353 | 80,038 | |
| Násik ... ... ... | 3,578 | 2,234 | 1,46,029 | 5,401 | 78,410 | 1,49,607 | 86,045 | |
| Ahmednagar ... ... | 11,649 | 3,402 | 47,940 | 4,113 | 53,135 | 59,589 | 60,650 | |
| Poona ... ... ... | 4,322 | 3,070 | 83,388 | 3,260 | 1,01,324 | 87,710 | 1,07,654 | |
| Sátára ... ... .. | 42,132 | 19,655 | 44,728 | 3,369 | 61,422 | 86,860 | 84,446 | |
| Sholápur ... ... | 269 | 621 | 32,782 | 1,362 | 33,939 | 33,051 | 35,922 | |
| Total ... | 1,76,130 | 46,703 | 6,38,039 | 35,052 | 4,31,375 | 8,14,169 | 5,13,130 | |

*Camp Poona,*
*Dated 29th December 1894.*

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

No. $\frac{R}{86}$ of 1895.

Revenue Department.

*Poona, 4th January 1895.*

Submitted to Government.

2. This report was received less than a week ago, but as it has already been expedited by Government, the undersigned feels bound to forward it with only such cursory remarks as occur to him after a rapid perusal. His knowledge of present forest matters in the Central Division is necessarily limited, but he had the advantage of an intimate acquaintance with them in some districts a good many years ago.

3. With reference to paragraph 21 it may be assumed with certainty that under no circumstances is the present forest area likely to be increased in any appreciable quantity. The question is more likely to arise whether certain areas will not have to be given back for cultivation.

4. Although the general demarcation of forest areas was completed some years ago the work never seems to come to an end, for under the orders of the Government of India a most troublesome task is now being carried out by dividing forest areas into—

Forests proper,

Fuel and fodder reserves, and

Pastures.

There has lately been a still further enunciation of policy which will not simplify the question. From reports which have been received regarding only one or two tálukas, it is evident the work will not be satisfactorily completed for years.

5. The undersigned considers that the working plan sketched by the Conservator is the only one that is suitable to such forests as are found in the Central Division. It is a matter for regret that up to the present so little should have been done in the way of forming blocks and coupes. It is presumed that there must be some special difficulty connected with the work as the Conservator says (paragraph 59) "at the most only one compartment to become the coupe of the year * * * * can be laid out in the more accessible blocks." It is to be hoped that more rapid work may soon be possible, but there is no doubt that some forests are so difficult to get at and so far removed from a market, that it will be impossible to exploit them for years. In the Thána district with accessibility to Bombay and two lines of railway with occasional water carriage, working plans with coupes for each year are in full operation.

6. The noticeable feature under "Protection from injury and breaches of Forest law" is the enormous reduction in the number of cases compounded under Section 67 of the Forest Act. This was of course due to the orders that were issued during the year 1892 and there was a good deal of misconception regarding their scope. Personally the Commissioner thinks that Section 67 is a most useful section which can be profitably worked to a very large extent under certain safeguards, but as the matter is now under the consideration of Government and orders may shortly be expected, it is hardly necessary to say anything further.

7. The regulation of grazing shows some interesting features. Nominally about one-third of the forest area is supposed to be closed to grazing. From this closed area no less than 188,584 animals were impounded. It may fairly be assumed that not one animal in ten which trespassed into the closed area was caught, so that practically the closing is a dead letter and the closed forest is nearly as much grazed as the open.

8. If the figures can to the smallest extent be relied on, paragraph 160 shows that the Central Division altogether contains 6,743,784 animals, the greater number of which require grazing of some sort. Paragraph 152 shows that 1,468,124 obtained grazing in the forests. From this it would appear that no

less than 5,275,660 animals were grazed in occupied and waste lands, or stall-fed. Only 363,977 animals obtained free grazing, being a trifle over 5 per cent. of the total number of animals in the division. The number of animals that paid for grazing in forests was 1,104,147 (1,468,124—363,977) or about 16 per cent. of the total of the division. It certainly seems a stretch of imagination to believe that nearly 80 per cent. of the cattle in the division are fed by private arrangement, that about 16 per cent. are grazed in Government forests on payment, and that only slightly over 5 per cent. graze free. The numbers of private impoundings given by the Conservator for some districts are also instructive. On the whole the Commissioner is of opinion that for several years to come any attempt at regulation of grazing will be practically futile.

9. Owing to practically unrestricted grazing, natural reproduction in the tracts where it is urgently required is retarded, and until certain areas are fenced and placed in charge of permanently resident watchmen, profitable results are impossible. When blocks and coupes have been marked off and rotation fixed, each coupe after it has been cut should be fenced and rigorously guarded night and day. Certain areas in favourable positions in the arid and treeless tracts of the Deccan might be subjected to the same treatment without having formed coupes of the year, but only after considerable expense has been incurred for some years will it be possible to judge of the results. It is the want of results up to the present that has to a certain extent fostered the cry against the utility of the Forest Department in certain areas.

10. On the whole the Department seems to have worked well under difficult conditions, and Mr. Shuttleworth has displayed his usual energy and devotion to duty.

J. K. SPENCE,
Commissioner, C. D.

# SOUTHERN CIRCLE.

No. 5014 of 1894-95.

FROM

J. L. L. MACGREGOR, ESQUIRE,
Conservator of Forests, Southern Circle;

To

THE CHIEF SECRETARY TO GOVERNMENT,
Revenue Department,
Bombay.

*Conservator's Office, Southern Circle,*
*Camp Bádámi, Bijápur District,*
*1st December 1894.*

SIR,

I have the honour to submit the Forest Administration Report of my Circle for the year 1893-94, together with its subsidiary statements.

I have the honour to be,
Sir,
Your most obedient Servant,

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

THROUGH THE COMMISSIONER, SOUTHERN DIVISION.

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# FOREST ADMINISTRATION REPORT OF THE SOUTHERN CIRCLE, BOMBAY PRESIDENCY, FOR THE YEAR 1893-94.

## INTRODUCTION.

The *personnel* of the superior and soubordinate staff underwent no change during the year.

2. In comparing the results of the year under report with those of last year, it must be borne in mind that the period reported on last year comprised 15 months, while the one now reported amounted to only 12 months.

3. The area finally settled during the Forest year 1893-94, amounted to 427 square miles in Kanara and 29 square miles in Kolábá. In Belgaum, 37 square miles of 'Protected forests' were converted into 'Reserved.'

4. The demarcation-party completed the survey of a line separating "Protected" from "Reserved" forests, and aggregating 75½ miles in length, in the Central and Southern Divisions of Kanara, at a cost of Rs. 1,894.

5. The Imperial Forest-Survey-Party carried on its operations in Kanara and Kolábá. The cost amounted to Rs. 32,863, and the area completed during the year to 249 square miles.

6. The work accomplished by the two Working-Plans' Parties comprised the collection of *data* for 135,406 acres of forests in Kolábá, and 21,106 acres in the Northern Division of Kanara, at a cost of Rs. 22,963, and 22,979, respectively.

7. The number of criminal cases which were taken into Court, amounted to 565, against 593 in 1892-93; and that of cases compounded by Forest-Officers, amounted to 374 against 916 in 1892-93. The marked diminution in the number of prosecutions and compoundings was, in a great measure, owing to wrong interpretation by Divisional Officers of orders issued by Government on the subject, and partly to the forest year having been 3 months shorter than that of 1892-93.

8. The number of cattle impounded for trespassing in closed forests, and for grazing without permits in open forests, amounted to 13,592 as against 16,746 in the preceding year of 15 months. The decrease is ascribable partly to greater leniency on the part of Divisional Officers in dealing with offences under the Forest Act, and partly to comparative shortness of the forest year.

9. The results of special measures taken for the protection from fire of an area of 1,320 square miles of forests, were, on the whole, satisfactory. Of the area attempted 98 per cent. is reported to have been successfully protected.

10. Natural reproduction was, on the whole, satisfactory.

11. The prices obtained for timber and other produce were high, owing to a generally-favourable agricultural season, and the consequent increased demand for building-wood.

12. The myrobollam-crop was unusually large, but the prices obtained for it were poor, owing to the dullness of European markets.

13. As regards the revenue, generally, the year has been a very prosperous one. Both the gross and net revenues of the year 1893-94, of 12 months were larger than those of the preceding year of 15 months. The receipts of the year amounted to Rs. 15,31,317 and the charges to Rs. 8,60,481.

# CHAPTER I.

## EXTENSION AND CONSTITUTION OF STATE FORESTS.

### (i).—ALTERATION OF AREA.

### (ii).—FOREST SETTLEMENTS.

14. The following table shows the forest-area of the Southern Circle for 1893-94 :—

| Names of Districts. | Area on 1st July 1893. | | Added during the year. | | Excluded or transferred to other heads. | | Area on 30th June 1894. | | Total Forest Area. |
|---|---|---|---|---|---|---|---|---|---|
| | Reserved. | Protected. | Reserved. | Protected. | Reserved | Protected. | Reserved. | Protected. | |
| | Sq.m. a. | Sq.m. a. | Sq.m. a. | Sq.m. a. | Sq.m. a. | Sq.m. a. | Sq.m. a. | Sq.m. a. | Sq.m. a. |
| Kanara ... ... | 754 454 | 2,794 269 | 427 168 | ... | 0 5 | 427 273 | 1,181 617 | 2,366 636 | 3,548 613 |
| Belgaum ... ... | 494 362 | 196 572 | 37 151 | ... | 0 2 | 47 32 | 531 511 | 149 540 | 681 411 |
| Dharwar .... .... | 171 410 | 260 258 | ... | .... | 0 495 | ... | 170 555 | 260 258 | 431 173 |
| Bijápur ... ... | 155 76 | 89 409 | ... | .... | 0 20 | ... | 155 56 | 89 409 | 244 465 |
| Kolábá ... ... | 381 286 | 63 588 | 29 393 | ... | 0 1 | 29 451 | 411 38 | 84 137 | 445 175 |
| Ratnagiri .... ... | 20 80 | ..... | ... | .... | ... | ... | 20 80 | ..... | 20 80 |
| Total ... | 1,977 388 | 3,405 176 | 494 72 | ... | 0 523 | 504 116 | 2,470 577 | 2,901 60 | 5,371 637 |

15. The changes in the area and classification of forests in Kanara are owing to the completion of the settlement of the whole of the Yellápur-Táluka, 44 villages of Kumtá and 21 of Ankólá, comprising forest-areas of 268·8, 106·04 and 52·4 square miles, respectively. These areas have been notified under Section 19 of the Forest-Act.

16. In Belgaum, 37 square miles and 151 acres of "Protected" forest were converted into "Reserved;" and in Kolábá, the area which had been formerly notified "Protected Forests," aggregating 29 square miles 108 acres, was declared "Reserved"; 285 acres were also added to the "Reserved Forests" of that district.

17. The column headed "Excluded or transferred to other heads" of the above table, represents the area which was transferred from "Protected" to "Reserved." This amounted to 427·3 square miles in Kanara, 37·2 square miles in Belgaum, and 29·6 in Kolábá. The following acreage which is included in the same column was disforested :—

| | Reserved. | Protected. | |
|---|---|---|---|
| | Sq. m. a. | Sq. m. a. | |
| Kanara .... ... | 0 5 | 0 105 | Due to errors in former Notifications. |
| Belgaum .... ... | 0 2 | 9 522 | During final settlement. |
| Dharwar .... ... | 0 495 | ..... | |
| Kolábá... .... ... | 0 1 | 0 340 | |
| Bijápúr .... ... | 0 20 | ..... | |
| Total ... | 0 523 | 10 327 | |

*Kanara.*

18. Mr. R. T. Wingate, Forest-Settlement-Officer, Northern Kanara, completed the field-work connected with 136 villages of Supá, aggregating 722 square miles. His settlement-proposals regarding this area will be ready early in November of the present year (1894).

19. Mr. Sheppard, Forest-Settlement-Officer, Southern Kanara, settled the forests of 53 villages in Siddápúr and 8 in Sirsi, with an area of 85·9 and 12·02 square miles, respectively.

20. The settlement-report on these forests will also be ready in November.

21. The 98 square miles of field-work completed by Mr. Sheppard last season compare unfavourably with Mr. Wingate's 722 square miles. The circumstances under which the two officers were working were, however, different. The forests of Sirsi and Siddápur, owing to their being much intersected by cultivated and *bet*-lands, and to their being greatly burdened by rights of way, require, acre for acre, more time to settle than the compact forests of Supá which are not infested by garden-proprietors and where rights are less numerous than those which exist in Siddápúr. Mr. Sheppard had also to make an enquiry into rights of way in 148 villages of the Sirsi Táluka; but what most impeded progress appears to have been his inquiry into customary usage regarding *bet* in Siddápúr, which necessitated his going to 90 per cent. of the *bet*-numbers and checking, on the ground, the lists of those who were reported to enjoy the right of user. He informs me that the total area of *bet* so treated was 13,117 acres, which, taking 4 acres as the average size of a *bet*-number gives over 3,000 *bet*-numbers, or, say, 2,700 to visit.

22. The investigation regarding the rights of user in respect to *bet*-lands, is only necessary in the event of a redistribution of the *bet*-lands and of the allotment by Government in communal *bet*-lands of specified portions for the exclusive use of specified gardens. This investigation can be most easily and cheaply carried out during the general settlement of the forest-area, and a speedy settlement of the policy to be followed in regard to *bet*-land is, on this account alone, greatly to be desired. If an allotment or sub-division of lands for *bet* is not to be carried out, the Settlement-Officer should, during the ensuing working-season, be able to complete the remaining field-work in Sirsi, Siddápúr and Honáwar (475·66 square miles).

23. The following area was notified under Section 4 of the Forest Act :—

| Acres. | Guntas. | |
|---|---|---|
| 180,222 | 11 | in Supá. |
| 582,160 | 6 | „ Siddápúr. |
| 133 | 16 | „ Belgaum. |
| 405 | 8 | „ Gókák. |

*Belgaum and Dharwar.*

24. In Belgaum, the resettlement of the tálukas on which reports had been submitted in previous years, with a view to the conversion of the "Protected" into "Reserved" forests, received the sanction of Government, but the area actually notified before the close of the year under report, consisted of only 37 square miles and 151 acres of the Gókák Sub-Division.

25. In Dharwar, the Settlement-Officer, Mr. Knight, completed the field-work of 5 tálukas, namely, Ránebennur, Kód, Hángal, Kalghatgi and Hubli, aggregating 154·7 square miles, and submitted settlement-reports on Gadag and Karajgi (70·9 square miles).

26. Mr. Knight reports that he also revisited the Bankápúr, Dharwar, Gadag and Karajgi Tálukas, and recorded rights of way omitted in the original reports. The field-work for the Dharwar-District has now been completed, and final proposals will, it is expected, be submitted very shortly.

27. The following table shows the progress made in the settlement of the forests which were gazetted under Section 34 of the Forest Act :—

| Name of Collectorate. | Class of Forests. | At the commencement of the year. | Areas dealt with during the year and sanctioned by Government. | | Area of Reserved Forests alienated under Section 26. | Area of Protected Forests disforested under Govt orders. | At the end of the year. |
|---|---|---|---|---|---|---|---|
| | | Areas under Section 34 in which private rights have not been enquired into, settled or recorded. | Under Section 19, Chapter II of the Forest Act. | Under Section 28, Chapter IV of the Forest Act. | | | Areas under Section 34, in which private rights have not been enquired into, settled or recorded. |
| | | Sq. m. a. | Sq. m. a. | Sq. m. a. | S. m. a. | Sq. m. a. | Sq. m. a. |
| Kanara ... ... ... | Reserved ... ... ... | 214 286 | ..... | ..... | ..... | ..... | 214 286 |
| | Protected... ... ... | 2,342 611 | 427 168 | ..... | ..... | 0 105 | 1,915 338 |
| Bijápúr ... ... ... | Reserved ... ... ... | 155 76 | ..... | ..... | 0 20 | ..... | 155 56 |
| | Protected... ... ... | 89 409 | ..... | ..... | ..... | ..... | 89 409 |
| Kolábá ... ... ... | Reserved ... ... ... | 11 353 | ..... | ..... | ..... | ..... | 11 353 |
| | Protected... ... ... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total ... | Reserved ... ... ... | 381 75 | ..... | ..... | 20 | ..... | 381 55 |
| | Protected... ... ... | 2,432 380 | 427 168 | ..... | ..... | 0 105 | 1,005 107 |

28. The area of the "Reserved" class shown in the last column of the above table, against Kanara, has been finally settled and the settlement-report has been submitted during the year under report.

29. The total area remaining to be reported upon at the end of the year, including all classes, was :—.

| | Sq. miles. | Acres. |
|---|---|---|
| In Kanara as detailed above 2,129 square miles, 624 acres—214 square miles, 286 acres ... ... ... | 1,915 | 338 |
| In Kolábá ... ... ... ... ... | 11 | 353 |
| In Dharwar (to be converted into "Reserved") ... | 266 | 286 |
| Total ... | 2,193 | 337 |

30. Government have, since the close of the year, passed orders on the settlement-reports on the Gadag and Dharwar-forests of the Dharwar-Collectorate (Government-Resolutions Nos. 6301 dated 26th July 1894 and 6354 dated 28th July 1894).

31. In Belgaum, 538 acres of waste land were notified during the year under Section 4, for inclusion in reserved forests.

32. The settlement of 11 square miles 353 acres of Kolábá, which has been a long time pending, has not been effected. It seems that the Collector is awaiting orders on a report submitted by him on the subject before undertaking the settlement.

33. Revised proposals for the Bijápúr-forests were sent in by the Collector together with maps, and orders were passed thereon in Government-Resolution No. 8339 of 11th October 1894.

34. Over 800 square miles of field-work were finished during last season by the two Settlement-Officers working in Kanara. The area for which field-work has still to be done is under 700 square miles. Two more working-seasons should, therefore, suffice for the completion of all field-work in Kanara and the last report should be ready by November, 1896, at latest. The settlement of the rest of the Circle is practically completed.

35. The expenditure incurred on account of settlement during the year under report, was as detailed below :—

*Not charged to Forests.*

| | Rs. | Rs. |
|---|---|---|
| Salaries and allowances of the Forest-Settlement-Officer, Southern Kanara ... ... ... | 11,665 | |
| Salaries and allowances of the Forest-Settlement-Officer, Belgaum and Dharwar ... ... ... | 12,846 | |
| | | 24,511 |

*Charged to Forests.*

| | | |
|---|---|---|
| Salaries and allowances of the Forest-Settlement-Officer, Northern Kanara; ... ... ... | 6,128 | |
| and of the establishment employed under him, and contingencies ... ... ... ... | 3,036 | |
| Salaries and allowances of the establishment employed under the Forest-Settlement-Officer, Southern Kanara, and contingencies... ... ... | 2,009 | |
| Salaries and allowances of the establishment employed under the Forest-Settlement-Officer, Belgaum and Dharwar, and contingencies ... ... | 2,838 | |
| | | 14,011 |
| Compensation ... | | 1,339 |
| Total ... | | 39,861 |

36. The settlement of the year, which is represented by the above expenditure, comprises :—

| | Rs. |
|---|---|
| 494·1 square miles finally settled and sanctioned ... ... | 13,410 |
| 974·6 square miles—settlement in progress (areas for which field-work has been completed) ... ... ... | 26,451 |
| | 39,861 |

37. The cost per square mile of the settlement finally effected during the year was Rs. 27·2.

38. The total cost for settlement-operations up to 30th June 1893, amounted to Rs. 3,24,118, and that on account of the area gazetted during the year under report to Rs. 13,410. The area finally settled and gazetted up to end of the year under report is 2,910·35 square miles, and the average cost of settlement up to date comes to Rs. 116 per square mile.

39. The reduced cost last year is ascribable to the exceptionally-large area completed by Mr. Wingate.

## (iii).—DEMARCATION.

## (iv).—SURVEYS.

40. Lines of demarcation, dividing "Protected" from "Reserved" forests, and aggregating 75 miles 2¾ furlongs in length, were surveyed and cleared, at a cost of Rs. 1,894, in the Ankólá, Yellápúr and Kúmtá Sub-divisions of Kanara, by the demarcation-establishment under the Forest-Settlement-Officer.

41. Field-books showing particulars of survey and boundary-marks for 8 villages of Ankólá, 2 of Yellapúr and 12 of Kúmtá, as well as maps of the forests, were also prepared for the use of Village-and Forest-Officers.

42. No demarcation-lines were cleared by departmental agency owing to want of funds.

43. The Imperial survey-party continued the topographical survey of the Kanara forests, and details for 193 square miles, on a scale of 4 inches = one mile, were completed at a cost of Rs. 16,530. The triangulation of 265 square miles and traversing of 250 square miles, cost Rs. 7,361. The total cost amounted to Rs. 23,891. Reckoning in the same way as last year, the cost per square mile of completed area, for work done on the 4-inch-scale, was the same as last year, namely, Rs. 85.

44. For the Survey-year 1892-93, 16 square miles were surveyed in Kolábá on the 8-inch scale, and 226 square miles in Kanara on the 4-inch'. The average cost per square mile amounted to Rs. 89.

45. In Kolába, 56 square miles were completed on the 8″ scale, at a cost of Rs. 8,972. The cost per square mile was Rs. 160, as against Rs. 205 in the preceding year; but in neither case is the cost incurred for traverses and triangulation included.

46. The average cost per square mile, reckoning as before, of the area completely surveyed during the year under report, was Rs. 102 against Rs. 116 in 1892-93.

47. Details of area surveyed, and under survey, during the year, will be found in the appendix, Form No. 49.

48. It is of course impossible to say exactly how much the completely-surveyed area has cost for any given year. If we assume that the cost of triangulation and traversing is constant each year, we must obviously take, as the cost of the completed area in any year, the whole of the expenditure during that year, or we may estimate the cost of triangulation and traversing per square mile, and add it to the cost of "detail" in order to get a fair idea of the cost of the survey.

49. Adopting the above methods, I find that the cost per square mile of completed area for the last three years was as follows:—

| Year. | Total Area completed. | | Cost per square mile. 4 inch'. | Cost per square mile. 8 inch'. |
|---|---|---|---|---|
| | 8 inch'. | 4 inch'. | | |
| | | | Rs. | Rs. |
| 1891-92 ... ... | 300 | ... | ... | 122 |
| 1892-93 ... ... | 68 | 195 | 119 | 239 |
| 1893-94 ... ... | 57 | 193 | 120 | 191 |

50. In 1892-93 and 1893-94, only detail-work was carried out on the 8-inch scale, and the cost per square mile of triangulation and traversing in this estimate has been taken from the actual cost of the survey under these items in 1891-92. The cost per square mile of the former was Rs. 12 and of the latter Rs. 22 in that year. By applying these results to 1892-93 and 1893-94, we get total survey-costs of Rs. 239 and Rs. 191, respectively.

51. It is evident, therefore, that there has been a remarkable increase in the cost of work since 1891-92. The cost last year was somewhat less than in the previous year, but the cost of the 8-inch' survey was less in 1891-92 than the cost of the 4-inch' in 1893-94.

52. But the most remarkable differences are to be found in the expenditure on the 8-inch' survey, which, in 1892-93, cost more than double what it cost in 1891-92, and, last season, 57 per cent., more than in 1891-92. The Superintendent has not explained these apparent anomalies, and I regret that I am equally unable to account for them. If the cost of the 8-inch' map is really so much greater than that of the 4-inch' map, it would, in my opinion, be desirable to finish the Kolábá-Survey on the 4-inch' scale, which would suffice for forest-purposes. At the same time, I confess, I have little hope that a very appreciable saving could be effected by this means, as practically all the details that can be taken up for the 8-inch' maps can also be shown on the 4-inch' maps, and it is the topographical details that, other things being equal, run away with most of the money. A reduction to the 2-inch', or 1-inch' scale would, on the other hand, make an appreciable difference in the cost of the survey, and suffice for the forests still remaining to be surveyed.

53. It appears from paragraph 8 of the administration-report for 1890-91 that the difference between the cost of surveys on the two scales was estimated to be Rs. 12 for that year. In 1892-93, it had risen to Rs. 93 according to my estimate, and last season it appears to have been about Rs. 67. At the same time, the cost of maps on both scales has risen considerably, as already observed.

54. It seems desirable that some means should be devised for reducing the cost of the survey, as it is out of all proportion to the value of the forests still remaining to be surveyed.

# CHAPTER II.

## MANAGEMENT OF STATE FORESTS.

### I.—REGULATION OF MANAGEMENT.

#### (*a*).—Working-Plans and their Control.

55. Mr. Mainwaring remained in charge of the Working-Plans' Party I. during the rains, and on his transfer to Bijápur about the end of October, he was relieved by Mr. Hodgson. From the beginning of the working-season, in November, Mr. Bell held charge of Working-Plans' Party II., relieving Mr. Hodgson, who was then posted to Party I.

56. Mr. Hodgson, in charge of Party I., commenced work in Kolábá early in November, and remained there until the 8th of March 1894, when he went on three months' privilege-leave. Mr. H. Mitra, Extra-Assistant Conservator, was then placed in charge of the party, and continued in charge of it, until the close of the working-season. Mr. Oliver, on transfer from the Central Circle, took charge of the party from Mr. Mitra on the 19th of June.

57. The following table shows the work accomplished by the Working-Plans' Party I., in Kolábá, during 1893-94 :—

| Area estimated. | Test trees felled. | Number of Compartments formed. | Area for which *data* for the preparation for Working-Plans were collected. | Number of Maps and Tracings prepared. | Total Cost incurred. | Cost per Acre. |
|---|---|---|---|---|---|---|
| Acres. | No. | No. | Acres. | No. | Rs. | Rs. a. p. |
| 135,406·19 | 840 | 28 | 135,406·19 | 47 | 22,963 | 0 2 8 |

58. The field-work in Kolábá consisted mainly in the counting of all teak-trees above 4 inches in diameter at breast-height on 205 square-miles of forest. The forest consists, almost entirely of coppice, and it is proposed to regulate it according to the quantity of material available subject to an area-check, the object sought being to cut annually approximately equal numbers of stems during each period on approximately equal periodic areas. The ground is very irregularly stocked, and it is hoped that by fixing the periodic area while varying the annual area in accordance with the mean capability of the periodic

area, a fairly uniform yield will be obtained during each period. The working-plan has been submitted by the Divisional Officer and will be in the hands of Government very shortly. One more season will see the work of organization finished for Kolábá. It is not possible to compare the work done last season in Kolábá by Party I. with that done by it in 1892-93 in Kanara, the method pursued in Kolábá being so much more rapid than that required for the heavy timber-forests of Northern Kanara. The progress made last season appears to me to be very satisfactory and creditable to Mr. Mitra and the other officers of Party I.

59. Party II., under Mr. Bell, continued the work of organizing the teak-forests of the Northern Division of Kanara, and the following table shows the work done and its cost :—

| Year. | Compartment lines 10'—15' broad. Jungle cut and cleared. | Linear Miles surveyed. | Posts fixed. | Test trees felled. | Number of Compartments formed. | Test area enumerated. Acres. | Trees examined by means of Pressler's Gauge. | Area for which the *data* for the preparation of plans were collected. | Total Cost. | Cost per Acre. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Acres. | Rs. | Rs. a. p. |
| 1893-94... ... ... | 68·976 | 71·792 | 828 | 126 | 36 | 1,550 | 150 | 21,106·07 | 22,979 | 1 1 5 |
| 1892-93... ... ... | 40·427 | 43·7 | 784 | 77 | 18 | 937 | ... | 9,994·6 | 13,753 | 1 6 0 |
| Difference ... ... | +28·549 | +28·092 | +44 | +49 | +18 | +613 | +150 | +11,111·47 | +9,226 | −0 4 7 |

60. The increase in the quantity of work done last season, as compared with 1892-93, is partly due to the fact that, in the latter year, a portion of the party was detached to mark off *coupes* in Kolábá, its services being consequently lost for the rest of the year, and partly to the fact that last season the party suffered less from sickness. These circumstances, alone, would not, however, suffice to account for the improvement effected, and credit is due to Mr. Bell and the officers serving under him for the increased quantity of work done. The area enumerated amounted to 7·05 per cent. of the total area for which *data* were collected.

61. Mr. Bell also prepared a scheme, now before Government, for the working of 215·904 square miles of timber-forests in the Northern Division of Kánara. The *data* for it were collected in former years with the exception of those collected for 16,884 acres during the season under report. The plan deals with the areas referred to in clauses 1 and 2 of paragraph 58 of last year's report, and although nominally a revised plan, it is virtually a new plan.

62. The forest, referred to in clause (4) of the same paragraph, has been divided up into compartments, but has not yet been finally organized as it consists almost entirely of jungle-woods for which there is at present but small demand. The area referred to in clause (3) consists of teak-tracts which can be most advantageously dealt with in connection with the adjoining teak-forests of the Gund-jungle, the organization of which will be proceeded with as rapidly as possible.

63. The cost of plans completed up to date is 13·5 annas per acre for the Northern Division of Kánara and 2·6 annas for Kolábá.

64. The total area for which complete *data* were collected amounted to 156,512 acres, and the average cost per acre to 4·6 annas. Complete working-plans have been submitted for 152,290 acres of this area.

## II.—WORKING OF THE YEAR.

### (*a*).—Communications and Buildings.

65. A detailed account of the works executed during the year under report will be found in Form No. 51.

66. The outlay on communications amounted to Rs. 3,147, and on buildings to Rs. 2,384.

67. In the Northern Division of Kanara, no new work was executed during the year. The cost of repairing forest-roads and buildings amounted to Rs. 353.

68. In the Central Division of Kanara, the Shelebail branch of the Kanigeri-Udámaki-forest-road was lengthened 1·19 miles at a cost of Rs. 93 and the well at Kólikéri was completed (Rs. 196). The cost of repairs to roads and buildings amounted to Rs. 865.

69. In the Southern Division of Kanara, a building was purchased for the Range-office, Honávár, at a cost of Rs. 435, and repairs to forest-buildings cost Rs. 579.

70. In Belgaum, Rs. 2,447 were spent on repairs to the Halshi-Nágargáli-forest-road, and Rs. 243 on repairs to buildings.

71. In Dharwar and Kolábá, buildings were repaired at a cost of Rs. 226.

72. In Ratnagiri, the expenditure under this head was confined to road-repairs (Rs. 45).

(*b*).—PROTECTION OF FORESTS FROM INJURY.

(*1*).—*General Protection and Breaches of Forest Law.*

73. The following statement shows the number of prosecutions and breaches of Forest-rules during the years 1892-93 and 1893-94:—

| Division. | Cases of year 1892-93. | | | | | | | Cases of year 1893-94. | | | | | | | Percentage of failure. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pending in Court on 1st April 1892. | Taken into Court during the year. | Total. | Disposed of by Magistrates during the year. | | | Pending in Court on 30th June 1893. | Pending in Court on 1st July 1893. | Taken into Court during the year. | Total. | Disposed of by Magistrates during the year. | | | Pending in Court on 30th June 1894. | 1892-93. | 1893-94. |
| | | | | Convictions. | Acquittals. | Total. | | | | | Convictions. | Acquittals. | Total. | | | |
| Northern Division, Kanara .. .. | .. | 119 | 119 | 68 | 48 | 116 | 3 | 3 | 102 | 105 | 32 | 73 | 105 | .. | 41 | 69 |
| Central Division, Kanara .. .. | .. | 18 | 18 | 10 | 8 | 18 | .. | .. | 25 | 25 | 15 | 6 | 21 | 4 | 44 | 24 |
| Southern Division, Kanara .. .. | .. | 100 | 100 | 83 | 7 | †90 | . | .. | 36 | 36 | 31 | 3 | 34 | 2 | 8 | 8 |
| Belgaum Division .. | 1 | *145 | *146 | 126 | 14 | 140 | *6 | 6 | 26 | 32 | 25 | 5 | 31 | 1 | 10 | 15 |
| Dharwar do. .. | .. | 29 | 29 | 18 | 9 | 27 | 2 | 2 | 17 | 19 | 12 | 5 | 17 | 2 | 33 | 26 |
| Bijápúr do. .. | 1 | 14 | 15 | 14 | 1 | 15 | .. | .. | 10 | 10 | 10 | .. | 10 | .. | 7 | .. |
| Kolábá do. .. | 5 | 133 | 138 | 102 | 32 | 134 | 4 | 4 | 287 | 291 | 187 | 33 | 220 | 71 | 24 | 11 |
| Ratnagiri do. .. | 1 | 35 | 36 | 17 | 18 | 35 | 1 | 1 | 62 | 63 | 43 | 18 | 61 | 2 | 51 | 28 |
| Total .. | 8 | *593 | *601 | 438 | 137 | 575 | *16 | 16 | 565 | 581 | 356 | 143 | 499 | 82 | 24 | 24 |

74. Of the cases instituted in the Northern Division of Kanara, only 8 were in connection with offences committed in the heavy forests of the Supá-and Haliyál-Ranges. Three of these were cases of incendiarism; and in two out of the three, convictions were obtained, the offenders getting off with fines. There were three cases in Supá concerning the clearing of jungle for grazing-purposes, but in none of them were convictions obtained.

75. In the Karwar-Range, 90 of the cases were for misappropriation of forest-produce within the five-mile-limit around Karwar. Up to the end of November, 1893, sixty-six of these cases were taken before Magistrates who let off the offenders in 53 cases with warnings, and convicted in 13 cases. This leniency failing to have the desired effect, magistrates became somewhat more severe, resorting, in some cases, to sentences of imprisonment for short periods, which resulted in the almost entire stoppage of offences.

76. In connection with these offences within the five-mile-limit, Mr. Davidson, the Collector, makes the following remarks:—

"The number of forest-offences brought before the Magistrates was considerable, and the result in the matter of convictions was not very satisfactory. That, however, was on account of the fact that in the neighbourhood of Karwar, where perpetual cutting and manufacture of dead-wood was going on, first offenders were let off with a warning as suggested in Government Resolution No. 7232, of 12th September, 1892. This was found not to be deterrent in the least, and, the cutting increasing, I issued a circular, which was brought to the notice of all concerned, warning them against cutting in forests, and at the same time pointed out to the Magistrates that unless people caught in the act were punished, no improvement was likely to take place. After a very few convictions, however, the illicit cutting almost entirely ceased."

77. These cases explain the high percentage of failures in this Division. The number of cases taken into Court was less than in the preceding year, although higher than in 1891-92, on account of the measures taken to put down petty thefts in the vicinity of Kárwár.

78. In the Central Division of Kanara, the percentage of failures was considerably less than that of the previous year. This, it seems, was due to greater care taken in the examination of cases before taking them into Court. There is a small increase in the number of cases which calls for no remark. None were of any importance.

79. In the Southern Division of Kanara, the number of cases taken into Court fell from 100 to 36, but the percentage of failure was the same as in the preceding year. Most of the cases taken before Magistrates, were in connection with the illicit cutting of *soppu* and reserved kinds of wood. The great decrease observable in the number of cases has not been satisfactorily explained by the Divisional Officer. Probably it is due to a misinterpretation by Controlling and Executive Officers of the orders contained in Government Resolution No, 7907, dated 6th October, 1892, regarding the treatment of offences.

* Errors in the Divisional Return, now rectified. † 10 cases withdrawn.

80. A large decrease (119) occurred in the number of cases instituted in the Belgaum-Division. There is a decrease of 84 cases under "illicit grazing," as compared with the previous year's returns. There is a decrease of 35 in respect of offences of other kinds which fell from 55 to 20. The Divisional Forest-Officer reports that in view of the Government-Resolution already quoted, he was much more lenient in dealing with forest-offences. This falling-off in the number of cases cannot, therefore, be ascribed to a diminution in the number of offences.

81. The large increase in the number of prosecutions in Kolábá is mainly due, the Divisional Forest-Officer reports, to a large number of cases (126) of unauthorized cultivation by wild tribes, especially in Alibág and Nágóthná.

82. In Ratnagiri, the increase in the number of cases taken into Court is ascribed by the Divisional Officer to the uncertainty of the law in regard to the rights of occupants to reserved trees. This matter was referred to in paragraph 79 of last year's report. It remains in exactly the same unsatisfactory state.

83. Two important cases occurred in connection with this question. In one, the Khot's of Wádad in the Chiplun-Taluka were prosecuted for obstructing Forest-Officers in attaching wood cut on occupied land without permission. The accused were let off by the Sub-divisional Magistrate owing to the uncertainty of the law in such cases. In the other, the Khots of Pimpli-Khurd were prosecuted before the District-Magistrate for obstructing Forest-Officers in the cutting of reserved trees in *khoti* lands, but the case was dismissed on the same ground.

* * * * * * * *

85. Details of cases of misappropriation of timber and other minor produce, as required by Government Resolution No. 7232, dated 12th September, 1892, are given in Appendix 52A.

86. Of the total number of cases that occurred in the Circle, 601 relate to theft of timber, 248 to theft of firewood, and 44 to theft of minor produce. The number of minor offences diminished from 875 in 1892-93 to 292 in 1893-94. The sudden fall in the number of cases brought forward is chiefly attributable to the effect produced on Divisional Officers by the orders contained in Government Resolution No. 7907, dated 6th October, 1892. The number of cases of theft of timber increased from 429 in 1892-93 to 601 in 1893-94, an increase which alone seems to indicate that forest-offences have not really diminished in number, although far fewer have been brought into Court. Another cause of apparent decrease in the number of cases is that the report for 1893-94 refers to the results of only 12 months, while that for 1892-93 refers to those for 15 months; but this cause does not nearly suffice to explain the great difference in the total number of cases taken into Court, and still less the decrease in the number of minor offences.

87. Appendix 52B shows details of cases compounded under Section 67 of the Forest-Act.

88. The cases dealt with under Section 67 of the Forest-Act were :—

| Divisions. | 1892-93. | | | | 1893-94. | | | |
|---|---|---|---|---|---|---|---|---|
| | Total number of cases disposed of. | Number of cases commuted. | Number of cases discharged. | Amount of compensation recovered. | Total number of cases disposed of. | Number of cases commuted. | Number of cases discharged. | Amount of compensation recovered. |
| | | | | Rs. | | | | Rs. |
| Northern Division, Kanara... ... ... | 15 | 13 | 2 | 89 | 33 | 33 | ... | 409 |
| Central Division, Kanara... ... ... | 22 | 20 | 2 | 103 | 7 | 6 | 1 | 17 |
| Southern Division, Kanara... ... ... | 4 | 4 | ... | 53 | 1 | 1 | ... | 9 |
| Belgaum Division ... | 475 | 475 | ... | 580 | 86 | 84 | 2 | 36 |
| Dharwar do. ... | 37 | 37 | ... | 83 | 35 | 5 | 30 | 1 |
| Bijápur do. ... | 83 | 83 | ... | 188 | 12 | 12 | ... | 15 |
| Kolábá do. ... | 154 | 154 | ... | 871 | 181 | 181 | ... | 618 |
| Ratnagiri do. ... | 126 | 123 | 3 | 612 | 39 | 39 | ... | 71 |
| Total ... | 916 | 909 | 7 | 2,579 | 394 | 361 | 33 | 1,176 |

89. There has been a marked decrease in the number of cases compounded during the year under report, in all the Divisions except Northern Kanara and Kolábá, where increase occurs of 20 and 27 respectively.

90. The increase in Northern Kanara was due to the occurrence of a great number of cases of illicit cutting of wood within the five-mile-limit of Karwar.

91. In Kolábá, the increase is attributed to the large number of cases on account of unauthorized cultivation of forest-lands in Alibág and Nágóthná. The amount of compensation accepted was, however, less by Rs. 253, which tends to show that the offenders were leniently treated.

92. As regards the large falling-off in the number of cases commuted during the year in Belgaum, Mr. Murray reports that it was not so much due to a diminution in the number of offences, as to the interpretation of Government-orders on the subject. Two hundred and sixteen cases in which people were accused of the cutting and removal of firewood for sale, which are not included in the number shown in the above table, were dismissed by him.

93. As in Belgaum, so also in Dharwar, minor offences were very leniently dealt with. Out of a total number of 38 cases reported, 30 were let off with warnings, and a nominal sum, Re. 1, was accepted as compensation in 5 of the remaining cases.

94. The Divisional Officer, Southern Kanara, reports that illegal *soppu*-cuttings in Sirsi and Siddápur, which are common in the unsettled villages of these talukas, were disposed of by the sale or destruction of the produce owing to the difficulty of obtaining convictions in such cases, which are too frequently regarded by Magistrates as too trivial for serious notice. Compensation was accepted only in 1 case in Kumta.

95. The decrease in Bijápur has not been satisfactorily explained by the Divisional Officer. The cause of it is no doubt the desire to carry out a conciliatory policy in dealing with offenders.

96. In Ratnagiri, the decrease is attributed to the uncertainty of the law regarding reserved trees in Khoti lands.

97. Appendix 52 shows the number of cases compounded and taken into Court during the year under report. The following statement shows the figures for 1892-93 and 1893-94 :—

| Division. | Taken into Court. | | Compounded under Section 67. | | Total number of cases. | |
|---|---|---|---|---|---|---|
| | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| Northern Division, Kanara ... | 119 | 102 | 13 | 33 | 132 | 135 |
| Central Division, Kanara ... | 18 | 25 | 20 | 6 | 38 | 31 |
| Southern Division, Kanara ... | 100 | 36 | 4 | 1 | 104 | 37 |
| Belgaum Division ... ... | 145 | 26 | 475 | 84 | 620 | 110 |
| Dharwar do. ... ... | 29 | 17 | 37 | 5 | 66 | 22 |
| Bijápur do. ... ... | 14 | 10 | 83 | 12 | 97 | 22 |
| Kolábá do. ... ... | 133 | 287 | 154 | 181 | 287 | 468 |
| Ratnagiri do. ... ... | 35 | 62 | 123 | 39 | 158 | 101 |
| Total ... | 593 | 565 | 909 | 361 | 1,502 | 926 |

98. The number of offences commuted in 1893-94 is less than that dealt with in 1892-93 by 38 per cent., and the fines inflicted fell from Rs. 2,579 to Rs. 1,176. The decrease in the number of offences is partly due to the period examined in 1893-94, being three months shorter than that examined in 1892-93.

99. The fact that the period now under report comprises only 12 months, while the figures for 1892-93 were for 15 months, is one of the causes of decrease in the number of cases taken into Court, or compounded by Forest-Officers. If a proportionate number of cases were added for the year 1893-94, their sum would amount to 1,158 cases against 1,502 for 1892-93. Another cause of decrease has been already noted.

### (2).—*Protection from Fire.*

100. A larger area was fire-traced in all the divisions except Dharwar and Kolábá.

101. The following table shows the results for each division :—

| Division. | Area in Square miles. | | | Percentage of failures to area attempted. | Cost. | | Proportion of Area under fire-protection to total Area of Reserves. |
|---|---|---|---|---|---|---|---|
| | Attempted | Failures. | Protected. | | Per Square mile protected. | Per Acre protected. | |
| | | | | | Rs. | Pies. | |
| Northern Division, Kanara ... ... ... | 513·61 | ·38 | 513·23 | ·07 | 20·42 | 6·12 | ... |
| Central Division, Kanara ... ... ... | 261·89 | 2·95 | 258·94 | 1·13 | 22·92 | 6·87 | ... |
| Southern Division, Kanara ... ... ... | ... | ... | ... | ... | ... | ... | ... |
| Belgaum Division ... ... ... ... | 278·88 | 6·95 | 271·93 | 2·49 | 9·04 | 2·71 | ... |
| Dharwar do. ... ... ... ... | 53·91 | 10·22 | 43·69 | 18·96 | 13·02 | 3·90 | ... |
| Bijapur do. ... ... ... ... | 121·33 | 3·58 | 117·75 | 2·95 | 4·45 | 1·33 | ... |
| Kolába do. ... ... ... ... | 70·28 | 1·41 | 68·87 | 2·01 | 3·42 | 1·03 | ... |
| Ratnagiri do. ... ... ... ... | 20·13 | ·07 | 20·06 | ·34 | ·84 | ·25 | ... |
| Total in 1893-94 ... | 1,320· | 26 | 1,294· | 1·97 | 15·62 | 4·68 | 53·41 |
| Total in 1892-93 ... | 1,238· | 19 | 1,219· | 1·53 | 19·34 | 5·8 | 62·6 |
| Increase or decrease in 1893-94 ... | +82 | +7 | +75 | +·44 | —3·72 | —1·2 | —9·2 |

102. The results of the year compare, on the whole, favourably with those of the year before. The area attempted has increased, while the cost per square-mile has decreased from 19·34 to 15·62 rupees. On the other hand, the failures have increased 0·44 per cent.; this increase is probably due to the absence of storms in parts of the Circle during the early part of hot weather.

103. The proportion of area protected to the whole area of the reserved forest shows a decrease, which is owing to 494 square miles having been brought over from the protected forest to the reserved area this year. Hence the apparent decrease in the area protected from fire.

104. The practice, introduced under Government-Resolution, No. 757, dated 27th January, 1893, of reporting each forest-fire to the Collector, is reported to have produced satisfactory results.

105. In Northern Kanara, 513·61 square miles, or nearly half the area of the division, were specially protected at a cost of Rs. 20·42 per square mile. The failures in this division amounted to 0·38 square miles, a very satisfactory result. Besides this area, about 49 square miles of forests in Haliyál, were protected by coolies without the opening of any fire-lines. In the Karwar-Range, 53 square miles of forest were added to the specially protected area.

106. No special operations were carried out in Southern Kanara, the important teak-forests, which were under fire protection in 1892-93, having been transferred to the Central Division of Kanara, during the year under report.

107. The results of fire-protection in the Central Division of Kanara, may, I think, be regarded as satisfactory. The failures (for an area attempted of 262 square miles) amounted to 2·95. The protected area of this division is much exposed to fires which spread from the Dharwar District, and to incendiarism on its eastern border, where the grazing is particularly good and some villagers and herdsmen like to burn the forest with a view to the production of a good crop of grass. There is, however, a slight improvement in the area protected last season, and a very great improvement in the cost of protection per acre, which fell from 11·7 to 6·87 pies. The Divisional Officer ascribes the saving in cost to early and frequent hot-weather-storms.

108. Mr. Haselden reports that "it is a very pleasant thing to be able to record that in Mundgód, and more especially in the Yelláp ur-Range, the Pátels and villagers voluntarily turned out on several occasions and extinguished forest-fires. It speaks well for the good feeling existing between the protective staff and the villagers."

109. In Belgaum, the area under protection was increased by 22·79 square miles. The principal reason for the increased expenditure which was 9·04 against 7·21 per square mile in the previous year, is ascribed by the Divisional Officer to the fact that a greater number of watchmen were found to be necessary to keep the fire-lines clean and to patrol the most important areas in Khánápur. Mr. Murray reports that particular attention was paid to the fuel-cuttings, the area burnt in the cuttings was the smallest on record, being 388 out of a total of 10,000 acres. It seems that there was no fire of much importance in the fuel-cuttings, with the exception of one caused by a passing train in the Akráli-cutting, in which 270 acres were burnt.

110. The area burnt during the year in Belgaum, was just double that burnt in the previous year. The increase occurs mostly in the Belgaum Sub-division, where a very large

area along the Ghâts is reported to have been burnt. The Divisional Officer reports that owing to the heavy rains last year towards the close of the monsoon, the grass was of exceptional length, a circumstance which rendered the forests much more liable to fire and the extinction of fires more difficult. In no case was the cause of fires traced. Mr. Murray is of opinion that they were caused by incendiaries. The Collector is of opinion that the system of reporting fires by means of post-cards is of some value if only as a means of convincing those directly concerned of the great importance which the authorities attach to this subject.

111. The number of fires was 136 in the year under report and 89 in the provious year. The Divisional Officer reports that the villagers rendered willing assistance in their suppression.

112. The reasons for the increased cost of fire-protection in Dharwar and Kolábá, have not been satisfactorily explained by the Divisional Officers concerned.

113. The following areas are estimated to have escaped fire without the adoption of special measures :—

| | Acres. |
|---|---|
| Northern Division, Kanara ... ... ... ... | 480,145 |
| Central Division, Kanara ... ... ... ... | 437,181 |
| Southern Division, Kanara ... ... ... ... | 918,822 |
| Belgaum Division ... ... ... ... ... | 252,885 |
| Dharwar do. ... ... ... ... ... | 260,850 |
| Bijápur do. ... ... ... ... ... | 73,435 |
| Kolábá do. ... ... ... ... ... | 240,606 |
| Ratnagiri do. ... ... ... ... ... | ... |
| Total ... | 2,663,924 |

114. The area reported as having escaped fire without the taking of special measures amounted to 4,000 square miles, or 74·3 per cent. of the whole area, during 1892-93. During the year under report, it amounted to 4,162 square miles, or 77·3 per cent. of the whole area.

115. *Northern Division of Kanara.*—The protection from fire of the dry teak-forests of this division is again reported to have been very successful. Five small fires took place in the Haliyál-Range, and three in the specially protected area of Supá, the area burnt being 121 and 53 acres, respectively. The offenders in two of the cases in Supá were traced, and their prosecution was ordered by the Divisional Officer about the close of the year. Seventeen cases of fire were also reported in Karwar, and a total area of 68 acres was burnt. Two offenders were prosecuted for setting fire to the forests, but the evidence was not sufficient to obtain conviction. In other cases, no trace of the offenders could be found. It seems probable that all the fires in Karwar were purposely caused by villagers for grazing-purposes, and that those in Haliyál were accidental.

116. *Central Division of Kanara.*—The Divisional Officer reports that protection from fire was very successful in the Yellápúr-Range. Having been there at the end of the hot weather, after the storms had dissipated all fear of fire, I can confirm this opinion. In the Mundgód-Range, several fires are said to have spread from *Inamdars'* forests on the borders of the Dharwar District. This is usually the case. Eighty-one fires took place in the division, in 4 of which the offenders were traced. The offenders detected in two of the cases were prosecuted for wilfully setting fire to *bet*-lands; and in one of these, the accused was let off with a fine of Rs. 2. In the other, the accused had not been tried at the close of the year. The remaining two cases were let off with warnings, as, in one, the offender was a boy, and, in the other, the fire had accidentally spread from the burning of a dead body. No offenders could be traced in the remaining 77 cases.

117. *Southern Division of Kanara.*—For reasons already given no special measures of fire-protection were adopted in this division. The number of fires amounted to 53, but their origin was in no case discovered. In all, 2,374 acres are reported to have been burnt. The area which escaped fire, was, according to this statement, 99 per cent. of the whole, but this is probably an over-sanguine estimate. It appeared to me when travelling in the division in the hot weather that a larger area had been burnt.

118. *Belgaum.*—Protection is, on the whole, regarded as satisfactory in the division, as the most important areas were successfully protected. The number of cases in which fire was brought to notice was 136 against 89 in the previous year. The number of fires reported is steadily increasing, but this is almost certainly due to the greater attention now paid to fire-protection as compared with former years. There is certainly no reason to suppose that protection is now less effective. The failure to detect a single offender is very disappointing.

119. *Dharwar.*—The Divisional Officer reports that forest-fires were more prevalent in the Kalghatgi and Dharwar sub-divisions, than elsewhere. Seventy-five cases were reported, of which 13 occurred in forests protected by fire-lines, and one in a closed number in the Kod-Range. The remainder occurred in localities in which no special protective measures were undertaken. The proportion of failures does not compare favourably with the results of the previous year, but this is attributed to extra care in estimating the actual areas burnt. No offenders were detected.

120. *Bijápur.*—The closed forests and the plantations in Bádámi and Bágalkót were specially protected as in the preceding year. It is reported that 2,296 acres were burnt during the year, against 51 in 1892-93. No offenders were discovered and the cause of fires could not, therefore, be ascertained.

121. *Kolábá.*—113 fires were reported. The offenders were discovered in nine cases and one was prosecuted and fined 8 annas by the Magistrate. The rest were dealt with under section 67 of the Forest-Act. The fires are reported to have been caused by *ráb*-burning and smoking. The area attempted was 44,978 acres against 59,159 in 1892-93. The decrease is ascribed to want of funds. The Divisional Officer should arrange for the protection of a larger area.

122. *Ratnagiri.*—The results are very satisfactory. The number of fires that occurred, and the acreage of forest burnt during the year under report, amounted to 5 and 42, as against 3 and 6, respectively, in the previous year. The offenders in connection with 2 fires in the Khed-Range, were prosecuted, but were let off with fines of Rs. 5 and 3, respectively. In the case of a fire in Dápoli, the offender was traced and orders for a prosecution were issued about the close of the year. Of the remaining two cases, one was let off with warning to the accused for his carelessness, and no trace could be found of the offender in the other case.

123. The number of fires reported was 488 for the whole circle, while the number of cases in which the offenders were detected was only 21. It is extremely difficult to detect offenders, and, in those parts of the Circle in which the forests are set fire to year after year, indirect means, such as a slight and temporary increase of the grazing-fees, will, in my opinion, have to be resorted to sooner or later.

### *(3).—Regulation of Grazing and Protection from Cattle.*

124. The grazing rules introduced in 1890-91 into parts of the Circle appear to have worked fairly well, but there is a very general feeling amongst District Officers that the uncertainty that exists in regard to what cattle should, in any given case, be considered agricultural, is apt to give rise to disputes and to lead to fraud on the part of Village-Officers. It seems probable, too, that villagers, themselves, prefer a uniform charge for each head of cattle grazed in the forest, whether agricultural or not, and that they have some difficulty in understanding the rationale of the present system. If continued, it appears to be necessary to determine the number of acres of wet and dry-crop land that can be worked by a pair of bullocks and to allow free cattle according to a fixed scale. This is what is now done in Belgaum, but, in Dhárwár there is no such system, and the cultivator does not understand on what principles the free-grazing of his cattle is settled.

125. Referring to this question, Mr. Fairlie Muir, Collector of Dharwar, writes: "The grazing-rules have worked satisfactorily. As the people have grown accustomed to the slightly enhanced rates, the feeling of discontent, that their introduction gave rise to, has well nigh disappeared. The only point about which discontent appears now to exist is with reference to the alleged irregularities, in so far as the rates for agricultural cattle are different from those of non-agricultural cattle. The cultivator looks upon it as a grievance that he has to pay more for his milch-cow than for his plough-bullock. Were the rates assimilated, all ground for complaint would be removed. This uncertainty, too, of the present incidence sometimes raises disputes, causes trouble, and gives rise to opportunity for improper practices on the part of the Village-Officers who realize the rates."

126. The number of cattle impounded is shown in the following table. The period for 1892-93 comprises 15 months; that for 1893-94, 12 months. The decrease in the latter year amounts to just about 20 per cent. and is proportionate to the shorter period embraced by it. It is relatively somewhat greater in closed than in open forest, a fact which, so far as it goes, is satisfactory:—

| Division. | Number of Animals impounded during 1892-93. | | | Number of Animals impounded during 1893-94. | | |
|---|---|---|---|---|---|---|
| | In open Forests. | In closed Forests. | Total. | In open Forests. | In closed Forests. | Total. |
| Northern Division, Kanara ... | ... | 207 | 207 | 111 | 157 | 268 |
| Central Division, Kanara ... | 129 | 417 | 546 | 37 | 71 | 108 |
| Southern Division, Kanara ... | 76 | 43 | 119 | 8 | 62 | 70 |
| Belgaum Division ... ... | 3,178 | 1,750 | 4,928 | 3,527 | 2,019 | 5,546 |
| Dhárwár do. ... ... | 3,233 | 3,935 | 7,168 | 2,253 | 981 | 3,234 |
| Bijápur do. ... ... | 2,037 | 779 | 2,816 | 2,270 | 1,299 | 3,569 |
| Kolába do. ... ... | 593 | ... | 593 | ... | 573 | 573 |
| Ratnágiri do. ... ... | ... | 372 | 372 | ... | 224 | 224 |
| Total ... | 9,246 | 7,503 | 16,749 | 8,206 | 5,386 | 13,592 |

127. The decrease in the number of cattle impounded in Dharwar and the Southern Division of Kanara is regarded by the Divisional Officers as a sign that the people are becoming more willing to pay the fees. The difference in the case of Dharwar is, however, so great, that this explanation appears improbable; and I think it should be ascribed in a great measure to inefficient protection. The Collector of Dharwar thinks it may be due to some extent to the extra fees leviable in some of the pounds.

128. In Central Kanara, the decrease amounts to ¼. The Divisional Officer ascribes it to the absence of many professional graziers who have left the country on account of cattle-disease which has been very prevalent there of late.

129. The increase in Belgaum is ascribed by the Divisional Officer to the greater leniency displayed towards offenders, men, who might have been prosecuted for allowing cattle-trespass, having been let off and their cattle simply impounded, or allowed to go free.

130. Details of areas closed to horned cattle and browsers, as well as those left open for grazing, are given in Appendix 54. The areas closed to all animals amounted to 850 square miles, to browsers to 731, and those open to all animals to 3,832 square miles.

### (*c*).—Improvement of Forest-growth.

#### (*1*)—*Natural Reproduction.*

131. The attempt to exclude fire from the forests of the Northern and Central Divisions of Kanara has had a most marked effect on the reproduction by seed of teak, blackwood and other superior timber-species. Systematic protection was commenced in 1887. Up to that time, all deciduous forests of the Circle, with the exception of a plantation or two, were annually swept by fire. If, by chance, a portion of jungle escaped one year, it was pretty certain to be burnt during the next. Not a seedling was to be seen during the hot weather, and the soil was baked as hard as bricks and was quite unsuitable for the reception of seed. In addition to all this, an immense amount of damage was done to both standing and fallen timber. The first attempt at fire-protection, in 1817, although far from a failure, cannot be said to have been very successful. The system of fire-lines was incomplete, the lines were not properly attended to, and the executive and subordinate establishments were slack, being by no means alive to the importance of the work and to the possibility of carrying it out successfully. These initial difficulties have, however, been gradually overcome, and the success that has attended fire-protection during the last few years in many parts of the Circle, more particularly in the two most important divisions of Kanara, is very satisfactory indeed. Southern Kanara, Dharwar, and Kolábá are the most backward Divisions in regard to fire-protection.

132. In 1887-88, the areas attempted aggregated 130 square miles. In 1888-89 the area attempted rose to 1,000 square miles, but in neither of these years was the protection afforded considered at all satisfactory. In 1889-90, the area attempted was much the same, but the result appears to have been far more satisfactory, and it is stated in the administration-report for that year that, "this is the first year in which special fire-protection on a large scale has been, on the whole, successful in every part of the Southern Circle." Since then, protection has continued to be satisfactory and its effect on reproduction by seed has, as already observed, been most marked. All that is now wanted to ensure the adequate regeneration of our large timber-forests is more extensive protection and a regular system of improvement-cuttings which shall favour superior species by girdling or cutting inferior kinds. But, in the present weak state of the executive, the latter operation cannot be satisfactorily performed except for an insignificant area, comparatively speaking.

133. *Northern Division of Kanara.*—The Divisional Officer reports that natural reproduction by seed continues good in fire-protected areas, and remarks that teak is coming up well, and that its growth should be encouraged by improvement-cuttings.

134. *Central Division of Kanara.*—Here also the Divisional Officer reports that seedling-growth is excellent. The only impediment to it is fire, which is difficult to keep out on the eastern border of the Mundgód-Range. I was particularly struck during my tour in this Division with the excellent reproduction by seed of teak and blackwood and with the improvement in fire-protection in the Mundgód-Range. In the Yellápúr-Range, the reproduction leaves little to be desired.

135. *Southern Division of Kanara.*—The Divisional Officer reports that natural reproduction has improved and that it is best along the ghâts. The fires in this Division cause a great deal of damage, and are very difficult to prevent in Sirsi and Siddápúr where the forests are cut up by *bet*, gardens and rice-land.

136. *Other Divisions.*—With regard to the other Divisions, there is nothing to add to the remarks contained in last year's report.

137. *Coppice.*—Everywhere reproduction by coppice is good. Mr. Talbot reports that a fuel-forest in the Karwar-Range, cut over 12 years ago, is again ready for exploitation. The forest referred to is, of course, a forest below the ghâts, but the growth above the ghâts is extremely good also. Particulars of some experiments made regarding the growth of coppice-stems will be found in Appendices (A—D) to this report.

## *(2).—Artificial Regeneration.*

138. *Northern Division of Kanara.*—4,223 teak-seedlings in bamboo-tubes are reported to have been put down in gaps in the forests about Barchi. Of these, 1,060 are now reported to be dead, and the remainder to be 2 feet high.

139. In the Súpá-Range, out of 7,000 put down only 1,712 survived the hot weather.

140. Small nurseries were made at seventeen guard-houses dotted over the Division, and a good crop of seedlings has been obtained. These plants were to be put out last July in the forest, in gaps arising out of jardinage or other causes.

141. Better results will, it is hoped, be obtained in this Division during the current season. In 1893, the work in Haliyal was carelessly carried out. Tubes were loosely set in the ground with their ends protruding, the planting-sites were in many cases badly chosen, and the plants were often too close together.

142. The expenditure in this Division amounted to Rs. 218, most of the work being done by the guards.

143. *Central Division of Kanara.*—12,844 teak, 10 blackwood and 2,512 other species were put down in plantations, and 2,368 teak, 50 blackwood and 5,805 junglewood plants were put out in the forest. All the blackwood and about 600 teak have died. About 600 plants of *Pithecolobium saman* were put down and nearly all survived. This species thrives extremely well in Kanara.

144. A teak plantation has been made at Hulihond, in the Mundgód-Range, on a number of deserted rice-fields surrounded by forest. The Divisional Officer considers that it is turning out successfully, and this may prove to be the case. I was not, however, very favourably impressed with the appearance of the plants, and it seems to me that teak is not a species suitable for the planting-up of waste-land, where, in spite of watering, its growth is slow and feeble. The experiment at Hulihond should decide this question, as regards unmixed teak-plantations.

145. It is generally supposed that teak is not a shade-enduring species, but this supposition is certainly not true for Kanara, where seedlings and small poles may be seen forcing their way up through thick bamboo-cover, and where seedlings appear to flourish best under shade sufficiently dense to prevent the growth of grass. It appears, therefore, that teak in Kanara is well suited to natural regeneration by seed. So also are valuable species of other genera associated with it, such as *Dalbergia, Pterocarpus, Adina, Xylia,* and *Terminalia.*

146. The number of young trees surviving in the plantations of this Division at the end of June is estimated to be as follows:—

| Range. | Teak. | Other Species. |
|---|---|---|
| Yellápur ... ... | 6,842 | 6,817 |
| Ankolá ... ... | 15,056 | 11,416 |
| Mundgód ... ... | 27,012 | 18,233 |
| Total ... | 48,910 | 36,466 |

147. 2,368 teak, 50 blackwood and 5,805 plants of other kinds were taken from the forest and planted in suitable places in other parts of the forest, and 14 bagfuls of teak-seeds were sown partly in pits, or patches, 2 feet square and partly broadcast. Altogether 13,479 patches were sown in the Yellápúr-Range, and 2,970 in Mundgód.

148. The expenditure on plantations amounted to Rs. 760. The operations in connection with sowing and planting in the forest itself, as distinguished from plantations, cost nothing, as they were carried out by guards and coolies employed in fire-protection.

149. *Southern Division of Kanara.*—The 25 acres planted up in the Honávar-Range in 1891-92 have been apparently a comparative failure : 1,500 plants are reported to be flourishing.

150. A few sandal-seedlings were planted out but they, too, failed, as also seeds collected and sown by the guards.

151. Small nurseries were prepared at each guard-house. The expenditure was Rs. 68.

152. *Belgaum.*—The nursery at Nágargáli was extended from one guntha to 41, and is reported to contain a good stock of teak-seedlings.

153. The experiment at Nágargáli, referred to in paragraph 147 of last year's report, was successful. About 60 per cent. of the seedlings planted out having survived, but it is too soon to form definite conclusions regarding the degree of shade most suitable for the teak.

154. The 400-acre-plot at Hémadge, referred to in the report for 1892-93, which was enclosed with a fence, is gradually becoming re-stocked by natural means. The latter were supplemented by planting but unsuccessfully. Considerable damage was unfortunately done to this area by fire.

155. In the closed portion at Konnur (referred to in paragraph 131 of the report for 1892-93) comprising 200 acres, no planting was carried out, but the good effect of closure is reported to be very evident.

156. The expenditure in this division was Rs. 125.

157. *Dharwar, Bijápur and Kolábá.*—No fresh planting was done in these Divisions. The forests consist almost entirely of coppice.

158. *Ratnagiri.*—26,105 Casuarinas, 1,000 teak, 1,100 Terminalias were raised in a nursery. Of these 20,105 Casuarinas and 50 Terminalias were put down in the Dápóli-plantation. 12,400 plants of other species were also put out on blanks, and about 9 khandis of seeds were collected and sown broadcast by the guards.

159. Rupees 61 were expended.

*(3).—Early thinnings.*

160. The Casuarina-plantations near Karwar and Honávar were thinned.

161. In Haliyál, 172 square miles of forest were thinned. 3,448 dead standing mature timber-trees, and 7,417 dead standing poles were extracted.

*(4).—Other operations for the improvement of the growing stock.*

162. In Súpá and Karwar, inferior species on 1,300 acres were girdled to death.

163. The area over which similar operations extended in the Southern Division, Kanara, was 1,500 acres.

164. In Belgaum, inferior-species on 1,500 acres were girdled to death.

165. Similar operations were carried out on a smaller scale in Yellápúr and Ankolá.

166. Forest guards were also employed in cutting back creepers and vegetation that interfered with the growth of superior species.

*(5).—Experiments.*

167. In June, a smaller quantity of seeds of the *Swietenia macrophylla*, received from Mr. Gleadow, were sown in the Belgaum-Division and the Southern Division of Kanara, and some of these have germinated.

168. The Pithecolobiums sown in the previous year in the latter Division are reported to be doing well.

169. Experiments were made regarding the growth of coppice. Full details regarding them will be found in Appendices (A—D) together with curves and tables of growth.

# CHAPTER III.

## GROSS YIELD AND OUTTURN OF FOREST-PRODUCE.

*Northern, Central and Southern Divisions of Kanara.*

170. The large teak exploited, yielded 371,216 cubic feet, against 305,500 cubic feet in 1892-93; and small teak, such as poles, rafters, &c., aggregated 28,018 cubic feet, against 50,940.

171. The quantity of large junglewood removed, rose, from 296,440 cubic feet in 1892-93, to 336,605 cubic feet in 1893-94, and that of small junglewood fell, from 29,344 cubic feet to 20,298 cubic-feet. The quantity of large blackwood, exploited, also fell, from 55,551 cubic feet to 30,205 cubic feet, and that of small blackwood from 220 cubic feet to 73.

172. The increase in the yield of large teak occurs mostly in Central Kanara: about 69,800 cubic feet of timber were brought to the Kódibág and other depôts in excess of the quantity brought in during 1892-93. The contractor for that depôt failed to take down the prescribed quantity of wood during 1892-93, and this wood, amounting to 45,974 cubic-feet, was brought down last season. The yield of the Northern Division of Kanara shows a decrease of 4,976 cubic-feet. This decrease as well as the decrease in the quantity of small teak and blackwood is mainly due to the fact that the figures for 1892-93, covered a period of 15 months and that those for the year under report are only for 12 months.

173. The quantity of large and small junglewood exploited during the year under report, was larger by 30,619 cubic feet. There was a better demand for the local consumption of *Matti*-wood (Terminalia tomentosa) in Northern Kanara, and *Nana* (Lagerstrœmia microcarpa) in Central Kanara.

174. The number of bamboos extracted was 3,707,493 in 1893-94 and 4,507,910 in 1892-93. The decrease is ascribable to the comparative shortness of the forest-year 1893-94. The demand for bamboos during the year under report, was good and the number sold exceeded that sold in 1891-92 by 413,301. Owing to the largeness of the crop, the yield of myrobollams was 4,479 khandis against 2,319 in 1892-93.

175. The firewood exploited, increased, from 1,138,355 cubic feet to 1,211,623 cubic feet. The increase is met with in the Northern Division of Kanara. The quantity supplied to the Southern Mahrátta Railway-Company rose, from 202,232, to 744,780 cubic feet. The Railway-Company is now able to utilize more firewood than can be supplied.

176. In Central Kanara there was a falling-off in the demand for export-fuel, the quantity removed being 1,278,300 cubic feet in 1892-93 and 130,087 cubic feet in 1893-94. The quantity exported from Southern Kanara, however, rose slightly, from 210,835 to 224,148 cubic feet.

*Belgaum.*

177. The yield of large teak from thinnings, always an uncertain quantity, amounted to 8,911 cubic feet against 18,661 cubic feet; of junglewood to 6,417 cubic feet and of blackwood to 233 cubic feet, against 4,302 and 638 cubic feet, respectively.

178. The outturn of teak, black and junglewood-poles, pieces, &c., measured 68,875, 700, and 31,255 cubic feet, respectively, against 34,979, 190 and 12,313 cubic feet. The large increase in teak-poles is due to selection-fellings for the depôts of Linganmath and Golihalli, which have been renewed, the forests in the neighbourhood of those *Nákás* having had a long rest. 73,319 cubic feet of bábul were brought in, against 3,181 cubic feet in the previous year: the increase is owing to the sale of bábul-wood in *kurans* in the Athni-Táluka, and is, therefore, an extraordinary felling.

179. The yield of firewood also shows an increase. The running-fuel for the Southern Mahrátta Railway-Company amounted to 4,254,382 against 3,128,149 cubic feet; lighting-fuel to 16,802 cubic feet against 33,262 cubic feet; and firewood sold to the public to 790,653 cubic feet, against 735,823 cubic feet.

180. The yield of myrobollams also increased, from 2,751 khandis in 1892-93, to 5,814 khandis. The crop was exceptionally good.

181. The number of bamboos fell, from 678,467 in 1892-93, to 512,087 in 1893-94.

182. This fall is probably owing entirely to the comparative shortness of the last forest-year; the most active season of the bamboo-traffic is the hot season from February to May. The yield rose in 1892-93 (15 months) to 678,467 from 402,037 in 1891-92 (12 months).

183. The outturn of *Shigekai* (pods of *Acacia concinna*) rose from 140 to 260 khandis.

*Dharwar.*

184. The yield of teak increased, from 21,079 cubic feet in 1892-93, to 147,217 in 1893-94; and of jungle-and black-wood rafters and *jarayat-pieces* (agricultural wood) from 5,036 to 6,704 cubic feet..

185. The quantity of fuel extracted, also increased, from 227,401 to 250,591 cubic feet. But the number of bamboos fell from 465,134 to 363,146. 7,766 trees were exploited from *Malki* lands.

186. The increase in the quantity of timber exploited is due to the increased prosperity of the district. There were, at the commencement of the year, large stocks in depôts, which, owing to a succession of bad or indifferent agricultural seasons, had remained unsold. Last season was a very prosperous one for the agriculturists, and the demand for timber was so great everywhere that it became necessary to carry out extensive fellings in order to keep a sufficient stock in hand. The contrast between the results of the last two seasons is increased by the fact that in 1892-93 cuttings were curtailed owing to the great quantity of surplus-stock in depôts.

187. The apparent falling-off in the bamboo-trade is not real. It is due to the cause that brought about a diminution of sales in other districts.

*Kolábá.*

188. The yield of teak fell from 658,810 to 478,674 cubic feet. But the quantity of firewood removed, increased, from 480,814, to 1,102,940.

189. The decrease in the quantity of teak exploited is partly due to the comparative shortness of the official year, and partly to a diminution of the quantity fixed for cutting during the year, owing to fear that the sustained yield might be exceeded if more were cut.

190. The increase in the quantity of firewood exploited is probably ascribable to the coupes of the year's being better stocked, but a conclusive explanation has not been received from the Divisional Officer.

# CHAPTER IV.

## FINANCIAL RESULTS.

191. The details of the year's transactions are shown in Forms Nos. 61—65 appended.

192. The receipts and expenditure of the Southern Circle for the forest-year, 1893-94, were :—

| Receipts. | Charges. | | | Surplus. |
|---|---|---|---|---|
| | A.—Conservancy and Works. | B.—Establishments. | Total. | |
| Rs. | Rs. | Rs. | Rs. | Rs. |
| 15,31,317 | 5,55,022 | 3,05,459 | 8,60,481 | 6,70,836 |

193. The figures for the financial years 1892-93 and 1893-94 were :—

| Year. | Receipts. | Charges. | | | Surplus or net Revenue. |
|---|---|---|---|---|---|
| | | A.—Conservancy and Works. | B.—Establishments. | Total. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1892-93 ... ... | 12,01,085 | 3,88,824 | 2,85,773 | 6,74,597 | 5,26,488 |
| 1893-94 ... ... | 15,12,407 | 5,37,493 | 3,02,280 | 8,39,773 | 6,72,634 |
| Increase ... | 3,11,322 | 1,48,669 | 16,507 | 1,65,176 | 1,46,146 |

194. The increase occurs chiefly in the Northern and Central Divisions of Kanara, and in Belgaum and Dharwar. It is mainly attributable to a prosperous agricultural year in the Southern Mahratta Country, which gave rise to a good demand and high prices for timber.

195. The following shows the revenue and outstandings at the end of the forest-year, as well as at the end of the financial year :—

| Year. | Amount realized. | Balance due to the Department at the end of the year. | Total. |
|---|---|---|---|
| | Rs. | Rs. | Rs. |
| Forest-year 1893-94 (1st July 1893 to 30th June 1894) ... ... ... ... | 15,31,317 | 2,94,856 | 18,26,173 |
| Financial year 1892-93 ... ... ... | 12,01,085 | 2,43,963 | 14,45,048 |
| Do. 1893-94... ... ... | 15,12,407 | 3,06,030 | 18,18,437 |

196. It will be seen that the transactions of the Circle, for the financial year 1893-94, amounted to Rs. 18,18,437, against Rs. 14,45,048 for the year before, those for the forest-year under report being Rs. 18,26,173.

197. The increase in the outstanding balances for the year under report, is accounted for by the unusually large sales of timber referred to above.

198. These large outstanding balances are an unsatisfactory feature in the annual reports, but cannot be greatly reduced under the circumstances without certain loss to Government. I have issued, for several years past, stringent orders forbidding any sales unless a quarter of the purchase-money has been paid down at the time of purchase. In former years, security was not always taken, and some bad debts were contracted, and, even now, it is not always possible to avoid them. Two statements are in course of preparation by divisional officers: the one showing recoverable and the other irrecoverable balances, and I will shortly report to Government on the subject. In the past year, the outstandings have increased with the increase in the quantity of timber sold. There must always be a considerable balance outstanding under our present system of selling timber in Kanara, but no other would answer. The custom is to pay down 25 per cent. of the purchase-money and the balance before the removal of the wood from the depôt, certain penalties being inflicted on the purchaser for its non-removal within a short period. If it is not removed within a year it is liable to be resold at the risk of the original purchaser. 25 per cent. of the purchase-money suffices to secure the department against all risks under this mode of sale. The wood is generally bought up by dealers who remove it from the depôts by degrees, when they require it, for resale to smaller dealers or builders.

199. The following shows the receipts and expenditure under main heads:—

| Heads of Revenue and Charges. | 1st July 1893 to 30th June 1894. | Financial years. | | | |
|---|---|---|---|---|---|
| | | 1892-93. | 1893-94. | Increase. | Decrease. |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| **Revenue.** | | | | | |
| I.—Timber and other produce removed from the forests by Government agency ... ... ... ... | 11,06,415 | 8,37,582 | 10,98,167 | 2,60,585 | ... |
| II.—Timber and other produce removed from the forests by consumers or purchasers ... ... ... | 4,03,066 | 3,46,130 | 3,94,294 | 48,164 | ... |
| III.—Drift and waif-wood and confiscated forest-produce ... ... ... | 4,298 | 6,717 | 4,034 | ... | 2,683 |
| IV.—Revenue from forests not managed by Government ... ... ... | 26 | 824 | 39 | ... | 785 |
| V.—Miscellaneous ... ... ... | 17,512 | 9,832 | 15,873 | 6,041 | ... |
| Grand Total, Revenue ... | 15,31,317 | 12,01,085 | 15,12,407 | 3,14,790 | 3,468 |
| **Charges.** | | | | | |
| *A.—Conservancy and Works.* | | | | | |
| I.—Timber and other produce removed from the forests by Government agency... ... ... | 4,27,369 | 2,65,614 | 4,12,495 | 1,46,881 | ... |
| II.—Timber and other produce removed from the forests by consumers or purchasers ... ... | 8,837 | 8,574 | 8,912 | 338 | ... |
| III.—Drift and waif-wood and confiscated forest-produce ... ... | .67 | 47 | 78 | 31 | ... |
| IV.—Revenue from forests not managed by Government ... ... ... | ... | ... | ... | ... | ... |
| V.—Rent of leased forests and payments to shareholders in forests managed by Government .. | 12,918 | 9,497 | 13,210 | 3,713 | ... |
| VI.—Live-stock, stores, tools and plant. | 2,528 | 9,853 | 5,684 | ... | 4,169 |
| VII.—Communications and buildings ... | 6,743 | 7,951 | 7,007 | ... | 944 |
| VIII.—Organization, improvement and extension of forests ... ... | 89,123 | 77,705 | 82,560 | 4,855 | ... |
| IX.—Miscellaneous ... ... ... | 7,437 | 9,583 | 7,547 | ... | 2,036 |
| Total A.—Conservancy and Works ... | 5,55,022 | 3,88,824 | 5,37,493 | 1,55,818 | 7,149 |
| *B.—Establishments.* | | | | | |
| I.—Salaries ... ... ... ... | 2,56,138 | 2,39,765 | 2,54,130 | 14,365 | ... |
| II.—Travelling allowances ... ... | 37,424 | 34,816 | 36,817 | 2,001 | ... |
| III.—Contingencies ... ... ... | 11,897 | 11,192 | 11,333 | 141 | ... |
| Total B.—Establishments ... | 3,05,459 | 2,85,773 | 3,02,280 | 16,507 | ... |
| Grand Total, Charges ... | 8,60,481 | 6,74,597 | 8,39,773 | 1,72,325 | 7,149 |

200. The receipts show increases under the main heads I, II, and V; and decreases under III and IV.

## I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT-AGENCY.

201. The increase is common to all the sub-heads. Under "*a.* Timber", it amounts to Rs. 1,92,187, and is met with as follows:—

Rs. 1,01,004 in Northern Kanara,
„ 1,28,899 in Central do.,
„ 11,694 in Dharwar,
„ 11,021 in Belgaum,

while the receipts of Kolábá and Ratnagiri show a decrease of Rs. 58,093 and 1,921, respectively.

202. The increase is attributable to prosperity in the Southern Mahratta Country, and consequent high prices. In 1892-93, the demand was weak owing to the agricultural distress of the previous year.

203. In Kolábá, a smaller quantity was exploited by Government-agency than that of 1892-93. The increased revenue under "II *a*", which amounts to Rs. 51,685, in a great measure accounts for the difference. There was also a less demand for wood sold in departmental cuttings.

204. The increase (Rs. 54,884) under "I *b*" is due chiefly to an increased quantity of fuel supplied to the Southern Mahratta Railway-Company from Belgaum and Northern Kanara. The receipts of Dharwar also show an increase of Rs. 6,790, due to a better demand: 11,498 stacks of firewood were sold, as against 5,048 in 1892-93.

205. The increases under *d* (Rs. 3,226) and *e* (Rs. 10,204) are owing (*a*) to a larger quantity of sandalwood having been sold in Dharwar and in Southern and Central Kanara, and (*b*) to a better crop of myrobollams.

## II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS.

206. The increase under "*a.* Timber" (Rs. 57,167) is attributable to a larger quantity having been exploited under the contract-system in Kolábá (with a corresponding decrease exploited under I), and to the sale of timber in *kurans* in Belgaum. The receipts for Ratnagiri show an increase of Rs. 6,400 owing to a part of the revenue from cuttings made in 1892-93, having been credited during 1893-94.

207. The increase under "II *c*" (Rs. 11,429) occurs mostly in Northern Kanara, and is due to a better demand for bamboos. Under "II *e*", the increase (Rs. 6,180) is due to better rates obtained for honey and to Rs. 4,200 on account of the sale of *tarwad*-bark (bark of *Cassia auriculata*) in Belgaum.

208. On the other hand, there was a falling-off of Rs. 23,362 under "II *b.* Firewood and Charcoal". Decreases are met with in Central Kanara (Rs. 21,760), Northern Kanara (Rs. 5,202) and Kolábá (Rs. 3,230): the purchasers had large unsold stocks of wood of the previous year on their hands, and, so, the demand diminished during 1893-94. In the Honáwar-Range of the Southern Division of Kanara, however, a larger quantity of firewood was sold for export, and this caused an increase of Rs. 3,636 in the receipts of that division. The receipts of Belgaum also show an increase of Rs. 2,332, due to sale of firewood in *kurans*, and of spray wood in the Khánápúr-fuel-cuttings.

209. The receipts under "II *d.* Grazing and Fodder Grass", show a decrease of Rs. 3,250. The decrease is met with mostly in the Northern (Rs. 2,000) and Southern (Rs. 2,682) Divisions of Kanara. A part of the grazing-revenue belonging to 1893-94 was credited in the accounts of 1892-93; hence the decrease. An increase of Rs. 2,199 is to be noted in Dharwar.

210. In Central Kanara, a large portion of the wood confiscated, illegally cut bya contractor, was sold in 1892-93, and this swelled the receipts of that year under III; hence the decrease shown above.

211. The increase of Rs. 6,041 under V is owing (*a*) to the first instalment of rent for *kuran*-lands, in Belgaum, leased out for the eradication of prickly pear in combination with cultivation, and (*b*) to the sale of Government-buffaloes.

## EXPENDITURE.

### A.—Conservancy and Works.

212. The increase under I, viz. Rs. 1,46,881, is met with as follows :—

213. Rs. 82,320 under "*a.* Timber", Rs. 46,588 under "*b.* Firewood and Charcoal" and Rs. 18,032 under "*e.* Grass and other minor produce".

214. The increase under *a* occurs in Northern (Rs. 56,467), Central (Rs. 55,223), Kanara, Belgaum (Rs. 2,451) and Dharwar (Rs. 2,992), and is due to a corresponding increase in the receipts under "I-*a.* Timber". The charges for Kolábá and Southern Kanara show a decrease of Rs. 9,261 and 5,459, respectively, due (1) to a corresponding decrease in the receipts and (2) to no charges having been incurred in the latter division on account of the Singanhalli-Depôt, which was transferred to the Central Division of Kanara during the year.

215. The excess charges referred to above were, to a considerable extent, on account of share-payments to those timber-contractors in Belgaum and Kanara, who are paid for logging and bringing wood to depôt by receiving a fixed percentage of the sale-proceeds which were higher than in 1892-93, owing to the exceptionally high prices realized for timber.

216. The increases under "*b.* Firewood" and "*e.* Grass and other minor produce," are also due to increases under the corresponding heads of receipts. The charges for Belgaum under *b*, also include arrears' payments for 1892-93 to fuel-contractors, amounting to about 11,000 Rupees.

217. The increase under V is due to larger payments to *Khóts* and *Rakhwáldárs* in Kolábá; and that under VIII is due to charges on account (1) of the salary and allowances of a Forest-Settlement-Officer, which were charged to the Forest Department, (2) of an additional Forest-Settlement-Office in Kanara, and (3) of compensation for lands purchased.

### B.—Establishment.

218. The increase of Rs. 14,365 under "I. Salaries" is ascribable (1) to the payment of compensation-allowances (Rs. 7,265), (2) to the acting promotion of Divisional Officers and (3) to the appointment of an additional Divisional Officer and an extra-Assistant-Conservator.

219. The increase under II is attributable (1) to the travelling-allowance of the additional officers, and (2) to payment of daily batta to foresters not in charge of ranges.

220. The value calculated at seigniorage-rates of the forest-produce granted free during the two years 1892-93 and 1893-94, is given in the following table :—

| Division. | 1892-93. | | | | | 1893-94. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Timber. | Bamboos. | Canes. | Firewood. | Value. | Timber. | Bamboos. | Palm tree. | Canes. | Firewood. | Value. |
| | C. ft. | No. | Head-loads. | C. ft. | Rs. | C. ft. | No. | No. | Head-loads. | C. ft. | Rs. |
| Northern Division, Kanara ... ... | 23,927 | 15,765 | ... | 2,334 | 5,738 | 17,003 | 59,762 | ... | ... | 1,725 | 3,504 |
| Central Division, Kanara ... ... | 29,705 | 7,120 | ... | ... | 6,490 | 20,852 | 12,113 | ... | ... | ... | 4,779 |
| Southern Division, Kanara ... ... | 22,057 | ... | ... | ... | 4,916 | 23,966 | ... | 1 | 2 | ... | 4,772 |
| Belgaum ... ... | 3,252 | 4,366 | ... | 792 | 899 | 1,664 | 2,675 | .. | ... | 1,188 | 492 |
| Dharwar ... ... | 202 | 600 | .. | ... | 92 | ... | ... | ... | ... | ... | ... |
| Bijápur ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Kolabá ... ... | 17,190 | ... | ... | ... | 1,119 | 10,770 | ... | ... | ... | ... | 1,589 |
| Ratnagiri ... ... | 100 | ... | ... | ... | 32 | 2,300 | ... | ... | ... | ... | 368 |
| Total ... | 96,433 | 27,851 | ... | 3,126 | 19,286 | 76,555 | 74,550 | 1 | 2 | 2,913 | 15,504 |

221. The decrease is due to the careful scrutiny of applications for free grants by the Commissioner.

222. The following shows the receipts and expenditure for the last five years :—

| Financial year. | Receipts. | Expenditure. | | | Surplus. |
|---|---|---|---|---|---|
| | | A Conservancy and Works. | B Establishment. | Total. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. |
| 1889-90 ... ... | 13,25,676 | 3,99,326 | 2,51,017 | 6,50,343 | 6,75,333 |
| 1890-91 ... ... | 13,49,826 | 4,38,426 | 2,66,529 | 7,04,955 | 6,44,871 |
| 1891-92 ... ... | 11,47,707 | 4,37,415 | 2,67,816 | 7,05,231 | 4,42,476 |
| 1892-93 ... ... | 12,01,085 | 3,88,824 | 2,85,773 | 6,74,597 | 5,26,488 |
| 1893-94 ... ... | 15,12,407 | 5,37,493 | 3,02,280 | 8,39,773 | 6,72,624 |
| Average, annual ... | ..... | ... | ... | ... | 5,92,358 |

223. The year 1891-92 was a year of scarcity throughout the Southern Mahratha Country, and the market for timber fell off suddenly. Since that year, the improvement in the gross and net revenues has been continuous and satisfactory.

# CHAPTER V.

## FOREST-ADMINISTRATION.

### INADEQUACY OF THE EXECUTIVE AND SUBORDINATE STAFF.

224. The want of a sufficient number of executive and subordinate officers is severely felt. The staff of rangers and foresters is not half what it should be for efficient management. Important ranges are in charge of men on Rs. 20 and Rs. 30, and sometimes have to be placed temporarily in charge of guards. I am convinced that if an adequate establishment were sanctioned, the additional charge for it would soon be covered many times by the increase in the revenue caused by more careful and efficient management.

### FOREST STUDENTS.

225. Owing to the absence of prospective vacancies in the executive staff, I have been obliged to defer indefinitely the deputation of students to the College of Science for the study of Forestry. The work of men who have passed out into the service from the College is generally satisfactory, and I am therefore very sorry not to be able to send the usual batch of 4 men to the College next term.

226. Four men passed out in September last, and 4 men are now going through the course of study.

### TOUR OF INSPECTION BY THE CONSERVATOR.

227. On November 5, I arrived at Karjat from Belgaum, and on the 7th proceeded, *viâ* Chauk, to Bárwai, where I met Mr. Mitra, Extra-Assistant-Conservator, and Mr. Hodgson, who was in charge of Working-Plans' Party I. After settling some details of organization with those officers, I went on to Panvél, where I met Mr. Stewart, Divisional Officer of Kolábá, on November 11. With him I went to Alibág, and, after the examination of his office, we proceeded together to Róhé, where we were joined by Mr. Robinson, Extra-Assistant-Conservator, in charge of the Northern Sub-division of Kolábá. From Róhe, I proceeded to Indápúr and Dásgáon, where I arrived on the 25th November, and embarked there for Ratnagiri. At Ratnagiri I met the Divisional Officer, Mr. B. G. Déshpándé. Leaving Ratnagiri on 29th, I travelled, *viâ* Páli, Sákopé, Malkápur and Irla, to Kolhápúr where I took train to Belgaum arriving there on December 4.

228. On December 13, I left Belgaum, and travelled through the Belgaum-District *viâ* Sútgati, Halki, Yergati and Kerkól to Konur in the Bijápur-District, and, on the 23rd moved camp to Nilgund, and on the 29th to Badámi.

229. On the 4th January, I reached Jálihál on the borders of Bijápur and travelled through the Rón and Gadag-tálukas of Dharwar to Annigéri, Hubli and Dharwar. On the 20th, at Dástikóp, I met the Divisional Officer of Dharwar, Mr. Woodrow. From Dástikóp, I moved Camp to Káwalwád and Halliyál, which was reached on the 24th. On the 26th, I left Halliyál, and reached Súpá on the 29th, Barchi on the 8th February, and Dándéli on the 13th. All the clerks, cartmen and followers being down with influenza, I determined to go back to Halliyál for medical advice. We reached that place on the 16th, and did not get away until 2nd March, when we started for Yellápur *viâ* Sámbráni and Tátwhál. From Yellápúr, camp was moved, *viâ* Manchikéri and Sondá, to Sirsi. There I met the Collector and the Forest-Settlement-Officer, and on the 22nd proceeded to inspect forests in Siddápur-Táluka, now under settlement by Mr. Sheppard. On the 31st, I returned to Sirsi, where I met the Divisional Officer, Mr. Betham, leaving again on the 4th April, and, travelling through the eastern portion of the Southern Division, reached Pálá on the 14th. From Pálá, I moved, through the Mundgód-subdivision, to Yellápúr, where I met the Divisional Officer, Mr. Haselden, on the 25th. On the 30th I went to Kolikéri, and returned to Yellápúr, where I met Mr. Bell, Divisional Officer, Working-Plans' Party II, on the 7th May. From Yellápúr I marched to Alnáwar and Nágargáli, returning to head-quarters on the 22nd.

## ESTABLISHMENT.

230. The establishment underwent no change during the year. The actual cost amounted to Rs. 1,10,391 and Rs. 1,41,464 on account of the superior and subordinate staffs, respectively, against Rs. 1,22,519 and Rs. 1,75,759 of 1892-93.

231. The changes among the officers of the superior staff were :—

232. Mr. A. C. Robinson, Extra-Assistant-Conservator and Sub-Divisional Officer, Kolábá, was on privilege-leave from 10th July to 9th October 1893. Mr. Régé, Ranger, acted for him.

233. Mr. W. R. Woodrow, Divisional Officer, Dharwar, was on privilege-leave from 21st September to 7th December, during which time the charge of the Division was held by Mr. Bell, in addition to his own, for part of that time; and, for the rest of it, by Mr. Talbot.

234. Mr. H. Mainwaring handed over charge of the Working-Plans' Division, No. I, to Mr. C. M. Hodgson, who gave over that of Division No. II to Mr. T. R. D. Bell, who handed over that of the Bijápur-Division to Mr. Mainwaring, on the 1st November, 1893.

235. Mr. C. M. Hodgson, Divisional Forest-Officer, Working-Plans' Party No. I, proceeded on 3 months' privilege-leave, handing over charge of his office on the 8th March, 1894, to Mr. H. Mitra, Extra-Assistant attached to the Party, who gave it, on the 19th June, 1894, to Mr. E. G. Oliver, Deputy Conservator, transferred, from the Central, to this Circle. Mr. Hodgson, on his return from leave, was posted to the Central Circle.

236. Mr. W. R. Woodrow, Divisional Officer, Dharwar, proceeded on 19 months' furlough, handing over his charge, on the 5th May, 1894, to the Collector, Mr. Fairlie Muir, who was relieved of it by Mr. Fry, Deputy Conservator, transferred from the Central Circle.

237. Five men, from the College of Science, were appointed as probationers, and four candidates were sent up to the Forest-class during the year under report.

238. During the year, the boundaries of the Central and Southern Divisions of Kanara were altered: the Kumta-Range with its establishment of 1 forester and 11 guards was transferred to the Southern Division, and the forests of 68 villages of the Sirsi-Táluka with 4 guards was transferred to the Central Division.

239. Thirty-seven guards were dismissed for misconduct, and one forester.

240. The conduct of the executive establishment has been, on the whole, satisfactory, but the work it is called upon to perform is too much for its strength.

241. The services of the following officers are specially mentioned by the Divisional Forest-Officers as deserving commendation :—

Mr. A. C. Robinson, Sub-Divisional Officer, Kolábá.
„ G. J. Régé, Ranger, Khánápur, Belgaum Division.
„ S. V. Nádkarni, } Trained Forest Probationers, N. D., Kanara.
„ V. S. Nagarkar, }
„ Mangéshráo Nágapa, Ranger, Yellápúr, }
„ Mahábléshwar Nágapa, Forester, Ankolá, } C. D., Kanara.
„ Sheshgiri Govind, Forester, Yellápúr, }
„ G. R. Máné, Ranger, Sirsi, } S. D., Kanara.
„ Wáman Subráo, Forester, Kumtá, }
„ Shankar Bápu Sáwant, Forester, Khed, Ratnagiri Division.
„ H. A. Nádkarni, L. C. E., Surveyor. }
„ R. R. Háttyangdi, } Trained Forest- } Working-Plans' Division.
„ D. D. Anantbhat, } probationers. }
„ T. N. Koppikar, }
„ M. Krishnaráo, } Foresters. }
„ G. C. Sirur, }

242. I have much pleasure in testifying to the good work done by Divisional Officers.

243. The health of the controlling establishment has been fairly good.

# LIST OF STATEMENTS, ACCOMPANYING THE FOREST ADMINISTRATION REPORT OF THE CONSERVATOR OF FORESTS, SOUTHERN CIRCLE, FOR 1893-94.

| | |
|---|---|
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| | 2. Cubic growth per acre. |
| | 3. Periodic growths. |
| | 4. Growth-curves. |
| B ... | *Kolábá Division (1894)*— |
| | 1. Mean growths for periods of 5 years. |
| | 2. Curves of growth. |
| C ... | *Dharwar Division*— |
| | 1. Diameter-growth. |
| | 2. Height-growth. |
| | 3. Curves of growth. |
| D ... | *Central Division of Kanara*— |
| | Weight and measurement of firewood. |

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

*Belgaum, 29th September 1894.*

## FORM No. 46.

### FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Area of Reserved Forests, 1893-94.*

| Division. | Range. | Civil District or Territory. | Name of Forest. | AREA ON 1ST JULY 1893. | | ADDED DURING THE YEAR. | EXCLUDED OR TRANSFERRED TO OTHER HEADS. | AREA ON 30TH JUNE 1894. | | Number and date of Notification of addition or transfer. | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Acres. | Equivalent in Square Miles. | Acres. | Acres. | Acres. | Equivalent in Square Miles. | | |
| Northern Division of Kánara. | Haliyál and Kárwár | Kánara ... | Haliyál and Kárwár ... | 298,425 | 466 | ... | ... | 298,425 | 466 | ..... | |
| Central Division of Kánara. | Yellápur, Mundgod and Ankola. | Do. ... | Yellápur, Mundgod and Ankola. | 118,321 | 185 | (*a*) and (*b*) *261,922 | 961* †(*d*) | 379,282 | 593 | *G. R. No. 8948 of 17th Dec. 1393; (*a*) No. 567 A of 22nd Jan. 1894; (*b*) No. 719 of 27th Jan. 1894. | |
| Southern Division of Kánara. | Sirsi, Honávar and Kumta. | Do. ... | Sirsi, Honávar and Kumta. | 66,269 | 104 | (*c*) and (*d*) †68,827 | 56,345 | 78,751 | 123 | †No. 8948 of 17th Dec. 1893; (*c*) No. 567 of 22nd Jan. 1894; (*d*) No. 4659 of 29th May 1894. | |
| Belgaum Division. | Khánápur, Gokák, Belgaum, Sampgaon, Chikodi and Athni. | Belgaum ... | Khánápur, Gokák, Belgaum, Sampgaon, Chikodi and Athni. | 316,522 | 495 | (*e*) 23,831 | (*f*) 2 | 340,351 | 532 | (*e*) No. 6029 of 21st Aug. 1893; (*f*) No. 339 of 13th Jan. 1894. | |
| Dhárwár Division. | Dhárwár, Kalghatgi, Hángal, Bankápur, Kod, Gadag, Ron, Nargund, Hubli and Ránebennur. | Dhárwár ... | Dhárwár, Kalghatgi, Hángal, Bankápur, Kod, Gadag, Ron, Nargund, Hubli and Ránebennur. | 109,850 | 172 | ... | 495 | 109,355 | 171 | Nos. 5879 and 5887 of 15th Aug. 1893 and No. 8522 of 21st Nov. 1893. | |
| Bijápur Division. | Badámi and Bágalkot. | Bijápur ... | Badámi, Hungund, Bijápur, Bágevádi, Muddebihál and Indi. | 99,275 | 155 | ... | 20 | 99,255 | 155 | No. 2406 of 29th Mar. 1894. | |
| Kolába Division. | Alíbág, Panvel, Pen, Roha, Mahád, Mangaon, Karjat, Khalápur and Nágothna. | Kolába ... | Alíbág, Panvel, Pen, Roha, Mahád, Mangaon, Karjat, Khalápur and Nágothna. | 244,126 | 381 | (*g*) 18,953 | (*h*) 1 | 263,078 | 411 | (*g*) Nos. 4730 and 4730A of 1st July 1893; (*g*) No. 9163A of 13th Dec. 1893; (*g*) No. 2970A of 30th April 1894; (*g*) No. 5471A of 27th June 1894, and (*h*) 5419 of 26th June 1894. | |
| Ratnágiri Division. | Dápoli, Khed, Sangameshvar, Devgad and Málvan. | Ratnágiri ... | Dápoli, Khed, Sangameshvar, Rajápur, Chiplún, Ratnagiri, Devgad and Málvan. | 12,880 | 20 | ... | ... | 12,880 | 20 | ..... | |
| | | | Total ... | 1,265,668 | 1,978 | ‡ 373,533 | § 57,824 | 1,581,377 | 2,471 | | |

‡ This is made up of as follows :—56,340 acres were transferred from the Southern to the Central Division of Kanara, and 961 acres from the latter to the former Division, the remainder (494 square miles 72 acres) being the area actually reserved.

§ The above remark also applies here, but the acreage actually excluded, amounted to 523 acres.

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

P 1106—8 s. c.

# FORM No. 46 A.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

### *Area of Protected Forests, 1893-94.*

| Division. | Range. | Civil District or Territory. | Name of Forest. | Area on 1st July 1893. | | Added during the year. | Excluded or transferred to other heads. | Area on 30th June 1894. | | Number and date of Notification of addition or transfer. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Acres. | Equivalent in Square Miles. | Acres. | Acres. | Acres. | Equivalent in Square Miles. | | |
| Northern Division of Kanara. | Supa ... ... ... | Kanara ... | Supa ... ... ... | 462,476 | 723 | ... | ... | 462,476 | 723 | ..... | |
| Central Division of Kanara. | Mundgod, Yellápur and Ankola. | Do. ... | Mundgod, Yellápur and Ankola. | 568,038 | 888 | * (x) 37,780 | † * 396,621 | 209,197 | 327 | * G. R. No. 8948 of 17th Dec. 1893; † No. 567 A of 22nd Jan. 1894 & No. 719 of 27th January 1894. | (x) Area transferred to Yellápur and Mundgod from Sirsi. |
| Southern Division of Kanara. | Siddápur, Honávar, Sirsi, Bhatkal and Kumta. | Do. ... | Siddápur, Honávar, Sirsi, Bhatkal and Kumta. | 757,915 | 1,184 | (a) 191,039 | (a), (b) & (c) 105,751 | 843,203 | 1,317 | (a) G. R. No. 8948 of 17th Dec. 1893; (b) No. 4,659 of 29th May 1894 & (c) No. 567 of 22nd Jan. 1894. | (a) The area (191,039 acres) was transferred from the Central to the Southern Division of Kanara. |
| Belgaum Division. | Belgaum, Chikodi, Gokák and Parasgad. | Belgaum ... | Belgaum, Chikodi, Gokák and Parasgad. | 126,012 | 197 | ... | 30,112 | 95,900 | 150 | No. 6029 A of 21st Aug. 1893. | |
| Dharwar Division. | Dharwar, Kalghatgi, Bankápur, Kod, Hángal, Gadag, Ránebennur, and Karajgi. | Dharwar ... | Dharwar, Kalghatgi, Bankápur, Kod, Hángal, Gadag, Ránebennur and Karajgi. | 166,658 | 260 | ... | ... | 166,658 | 260 | ..... | |
| Bijápur Division. | Bágalkot and Badámi. | Bijápur ... | Bágalkot, Hungund, Bijápur, Bágevádi and Indi. | 57,369 | 90 | ... | ... | 57,369 | 90 | ..... | |
| Kolába Division. | Alibág, Panvel, Pen, Roha, Mahad, Mangaon, Karjat, Khálápur and Nágothna. | Kolába ... | Alibág, Panvel, Pen, Roha, Mahad, Mangaon, Karjat, Khálápur and Nágothna. | 40,908 | 64 | ... | 19,011 | 21,897 | 34 | No. 9163 and 9163 C of 13th Dec. 1893; No. 2970 of 30th April 1894; No. 4359 of 17th May 1894; and No. 5471 of 27th June 1894. | |
| | | | Total ... | 2,179,376 | 3,406 | 228,819 | ‡ 551,495 | 1,856,700 | 2,901 | ‡ This is made up of:—37,780 acres were transferred from the Southern to the Central Division of Kanara, and 191,039 acres from the latter to the former. 504 square miles 116 acres were "excluded or transferred to other heads"—*vide* paragraph 14 of the report. | |

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 47.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Statement showing the Progress made in, and the Expenditure incurred on, Forest Settlements during 1893-94.*

| Name of Forest Division. | Name of Civil District or Territory. | Area already settled at commencement of the year. | AREAS FINALLY SETTLED DURING THE YEAR. | | | | | | AREAS UNDERGOING SETTLEMENT. | | | | | | REMARKS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Number and date of Government order according final sanction to the settlement. | Name of Forest settled. | Area, in Square miles. | Expenditure incurred during the year on areas finally settled. | | Entire cost per square mile of areas finally settled during the year. | At commencement of the year. | | Taken in hand during the year. | | Expenditure incurred during the year on areas undergoing Settlement. | | |
| | | | | | | In Forest accounts. | In other accounts. | | Name of tract. | Area in square miles. | Name of tract. | Area in square miles. | In Forest accounts. | In other accounts. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| *Reserved.* | | Sq. Ms. | | | | Rs. | Rs. | Rs. | | | | | Rs. | Rs. | |
| Northern Division of Kanara. | Kanara ... | 252 | ..... | ..... | ... | ... | ... | ... | Kárwár ... ... | 214 | Supa ... ... | 722 | 11,058 | ... | |
| Central Division of Kanara... | Do. ... | 272 | Nos. 567 A and 719, dated respectively 22nd and 27th Jan. 1894. | Yellápur and Ankola. | 321 | ... | ... | ... | Yellápur and Ankola. | 321 | ..... | ... | ... | ... | |
| Southern Division of Kanara. | Do. ... | 17 | No. 567 of 22nd Jan. 1894. | Kumta ... ... | 106 | ... | ... | ... | Sirsi and Kumta... | 537 | Sirsi ... ... | 12 | 2,009 | 11,665 | |
| Belgaum Division ... ... | Belgaum ... | 495 | No. 6029 of 21st Aug. 1893. | Gokák ... ... | 37 | 406 | 2,539 | 79 | Gokák ... ... | 37 | ..... | ... | ... | .. | |
| Dharwar Division ... ... | Dharwar ... | 172 | ..... | ..... | ... | ... | ... | ... | ..... | ... | ..... | ... | ... | ... | |
| Bijápur Division ... ... | Bijápur ... | ... | ..... | ..... | ... | ... | ... | ... | Bádámi, Hungund, Bágalkot, &c., forests. | 155 | ..... | ... | ... | ... | |
| Kolábá Division ... ... | Kolábá ... | 370 | Nos. 4730 and 4730 A of 1st July 1893; No. 9163 A of 13th Dec. 1893; No. 2970 A of 30th April 1894; and No. 6471 A of 27th June 1894. | Karjat, Panvel, Pen and Máhád. | 30 | ... | ... | ... | Karjat, Panvel, Pen, Máhád, Khándás, and Madrái villages in Nágothna. | 43 | ..... | ... | ... | ... | |
| Ratnagiri Division ... ... | Ratnagiri ... | 20 | ... .. | ..... | ... | ... | ... | ... | ..... | ... | ..... | ... | .. | ... | |
| | Total ... | 1,598 | ..... | ..... | 494 | 406 | 2,539 | 79 | ... .. | 1,307 | ..... | 734 | 13,067 | 11,665 | |
| *Protected.* | | | | | | | | | | | | | | | |
| Central Division of Kanara . | Kanara ... | 282 | ..... | ..... | ... | ... | ... | ... | ..... | ... | ..... | ... | ... | ... | |
| Southern Division of Kanara | Do. ... | 36 | ..... | ..... | .. | ... | ... | ... | ..... | ... | Siddápur ... | 86 | ... | ... | |
| Dharwar Division ... ... | Dharwar ... | ... | ..... | ..... | ... | ... | ... | ... | Dharwar, Gadag, Karájgi and Bankápur. | 371 | Ránebennur, Kod, Hángal, Kalghatgi and Hubli. | 154 | 2,838 | 12,846 | |
| Bijápur Division ... ... | Bijápur ... | ... | ..... | ..... | ... | ... | ... | ... | ..... | 90 | ..... | ... | ... | ... | |
| Kolábá Division ... ... | Kolábá ... | 64 | ..... | ..... | ... | ... | ... | ... | ..... | ... | ..... | ... | ... | ... | |
| | Total ... | 382 | ..... | ..... | ... | ... | ... | ... | ..... | 461 | ..... | 240 | 2,838 | 12,846 | |
| | Grand Total ... | 1,980 | ..... | ..... | 494 | 406 | 2,539 | 79 | ..... | 1,768 | ..... | 974 | 15,905 | 24,511 | |

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 48.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Record of Demarcation and Maintenance of Boundaries, 1893-94.*

| Division. | Length of boundaries artificially demarcated during the year. | Length of previously existing boundaries repaired. | Length of previously existing boundaries not repaired. | Total length of artificially marked boundaries at the close of the year. | Length of boundaries not demarcated at the close of the year. | Length of natural boundaries not requiring artificial marks. | Total length of boundaries at the close of the year. | Expenditure on demarcation during the year. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | On new work. | On repairs. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Rs. | Rs. | |
| Northern Division, Kanara ... | *... | ... | ... | ... | ... | ... | ... | ... | ... | *The Divisional Officer reports that no data are available. |
| Central Division, Kanara ... | 54 | ... | 102 | 156 | ... | ... | 156 | 1,372 | ... | |
| Southern Division, Kanara ... | *21 | ... | ... | 21 | ... | ... | 21 | 522 | ... | |
| Belgaum Division ... ... | *... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Dharwar do. ... ... | ... | ... | 3,355 | 3,355 | ... | 30 | 3,385 | ... | ... | |
| Bijápur do. ... ... | ... | ... | 190 | 190 | ... | ... | 190 | ... | 8 | |
| Kolábá do. ... ... | *... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Ratnagiri do. ... ... | *... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Total ... | 75 | ... | 3,647 | 3,722 | | 30 | 3,752 | 1,894 | 8 | |

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 49.

FOREST DEPARTMENT No. 17 PARTY (BOMBAY FORESTS).

*Statement of Forest Areas surveyed and under Survey during the Forest year 1893-94.*

| Division. | Areas surveyed and under survey during the year. | | | | | | | | | | | | | | | | | | | | | | | | Areas remaining to be taken under Survey. | Total Forest area at end of the year, as per Form No. 46. | Cost. | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Special surveys—Maps on 4" scale or over, by Survey of India Department or Forest Survey Branch.* | | | | | | | | *Ordinary, included in District Surveys.* | | | | | | | | *Chain and compass or other surveys by local officers.* | | | | | | | | | | | | |
| | WITH INTERIOR DETAILS. | | | | | BOUNDARY SURVEYS. | | | WITH INTERIOR DETAILS. | | | | | BOUNDARY SURVEYS. | | | WITH INTERIOR DETAILS. | | | | | BOUNDARY SURVEYS. | | | | | | | | |
| | WITH DETAILS OF GROWING STOCK. | | WITHOUT DETAILS OF GROWING STOCK. | | Total Cost. | Previous. | Of the year. | Total Cost. | WITH DETAILS OF GROWING STOCK. | | WITHOUT DETAILS OF GROWIG STOCK. | | Total Cost. | Previous. | Of the year. | Total Cost. | 4 INCH OR OVER. | | UNDER 4-INCH. | | Total Cost. | Previous. | Of the year. | Total Cost. | | | Previous. | Of the year. | Entire Cost of all Surveys to end of the year. | |
| | Previous. | Of the year. | Previous. | Of the year. | | | | | Previous. | Of the year. | Previous. | Of the year. | | | | | Previous. | Of the year. | Previous. | Of the year. | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| | | | | Sq. Ms. | Rs. a. p. | | | | | | | | | | | | | | | | | | | | | | | | |
| SOUTHERN CIRCLE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| *North Kánara.* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Triangulation on 4" ... | ... | ... | ... | 265 | 4,155 15 5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Traversing do. ... | ... | ... | ... | 250 | 3,204 15 0 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Detail Survey do. ... | ... | ... | ... | 193 | 16,530 1 11 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Total ... | ... | ... | ... | ... | 23,891 0 4 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| *Kolába.* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Detail Survey on 8" ... | ... | ... | ... | 56·98 | 8,972 3 11 | ... | ... | ... | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| Total ... | ... | ... | ... | ... | 32,863 4 3 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |

Accompaniment to Forest Survey Office No. 293 of 21st August 1894.

*Poona, 21st August 1894.*

C. E. TAPSELL,
Acting Superintendent, Bombay Forest Surveys.

# FORM No. 50.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Progress made in Working-Plans, 1893-94.*

| Division. | Areas for which Working-Plans have been completed. | | Areas for which Working-Plans are being compiled. | | Areas for which Working-Plans have still to be taken in hand. | Total Forest area, as in Form No. 46. | Entire cost per square mile of Working-Plans. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | At commencement of the year. | During the year. | At commencement of the year. | Taken in hand during the year. | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | Sq. miles. | Sq. miles. | Sq. miles. | Sq. miles. | Sq. miles. | Sq. miles. | Rs. | |
| Northern Division, Kanara ... ... | 122 | 93 | 47 | 32 | 918 | 1,189 | 536 | *i.e.* 13 annas and 5 pies per acre. |
| Central Division, Kanara ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | |
| Southern Division, Kanara ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | |
| Belgaum Division ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | |
| Dharwar do. ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | |
| Bijápur do. ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | |
| Kolábá do. ... ... | 81 | ..... | ..... | 212 | 152 | 445 | 11 | *i.e.* The cost per square mile of Working-Plans compiled last year; 3·3 pies per acre. |
| Ratnagiri do. ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | |
| Total ... | 203 | 93 | 47 | 244 | 1,070 | 1,634 | 547 | |

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 51.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Communications and Buildings during 1893-94.*

| Division. | New Work undertaken during the year. | | | | | Repairs executed during the year. | | | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Buildings. | | Roads and Paths. | | | Buildings. | | Roads and Paths. | | | |
| | Description of Building. | Expenditure incurred. | Road or Path, and object of the same. | Length of road or path. | Expenditure incurred. | Total Expenditure on new work. | Nature of Repairs. | Expenditure incurred. | Nature of Repairs. | Length repaired. | Expenditure incurred. | Total Expenditure on Repairs. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | | Rs. | | Miles. | Rs. | Rs. | | Rs. | | | Rs. | Rs. | |
| Northern Division, Kanara. | Temporary Rest-house at Bomanhalli. | 8 | Cart-track in the Birampáli Jungles. | 1 | 21 | | Monsoon repairs to the Haliyál and Supa Range Offices. | 56 | Repairs to the Haliyál Depôt road ... | 200 C. feet. | 7 | | |
| | Do. do. at Shiroli ... | 16 | | | | | Do. do. to the Divisional Office Building at Haliyál. | 10 | Do. to forest cart-tracks ... ... | 28 miles ... | 157 | | |
| | | | | | | | Do. do. to the Kodibág Depôt house and Timber-slide. | 44 | | | | | |
| | | | | | | | Do. do. to several náka houses, sheds, &c., in the Division. | 79 | | | | | |
| | Total ... | 24 | | | 21 | 45 | | 189 | | | 164 | 353 | |
| Central Division, Kanara. | * Construction of a well at Kolikeri. | 196 | Extension of the road from Kanigeri to Udámaki. | 1·19 | 93 | | Monsoon repairs to Forest Buildings in the Yellápur Range. | 319 | Muraming forest roads in the Yellápur Range. | 5·18 miles... | 377 | | * The work was partly done during 1892-93 at a cost of Rs. 348. |
| | | | | | | | Do. do. Mundgod Range ... | 88 | | | | | |
| | | | | | | | Do. do. Ankola do. ... | 81 | | | | | |
| | Total ... | 196 | | | 93 | 289 | | 488 | | | 377 | 865 | |
| Southern Division, Kanara. | † Range-office and Store-house at Honávar. | 435 | ... ... | ..... | ... | ... | Additions and alterations to the Building purchased at Honávar. | 315 | | | | | † This building was purchased and not constructed by the Department. |
| | | | | | | | Monsoon and petty repairs to several Forest Buildings in the Division. | 264 | | | | | |
| | Total ... | 435 | | | ... | 435 | | 579 | | | ... | 579 | |
| Belgaum Division. | ..... | ... | ..... | ..... | ... | ... | Monsoon repairs to 14 náka-houses ... | 157 | Metalling, ditching and rolling the Halsi-Nágargáli road. | 9·5 miles ... | 2,447 | | |
| | | | | | | | Do. do. to the rest house at Nágargálk. | 21 | | | | | |
| | | | | | | | Do. do. to temporary sheds at Merde, Londá, Kirpoli and Nándgad. | 35 | | | | | |
| | Total ... | ... | | | ... | ... | | 243 | | | 2,447 | 2,690 | |
| Dharwar Division. | ..... | ... | ..... | ..... | ... | ... | Repairs, such as turning tiles, white-washing, &c., to several Forest Buildings in the Division. | 122 | | | | | |
| | Total ... | ... | | | ... | ... | | 122 | | | ... | 122 | |
| Bijapur Division. | ..... | ... | ..... | ..... | .. | ... | | | | | | | No works were carried out in the Division. |
| | Total ... | ... | | | ... | ... | | | | | | | |
| Kolábá Division. | ..... | ... | ..... | ..... | ... | ... | Thatching the náka-huts in the Alibág, Khálápur and Karjat Ranges. | 104 | | | ... | ... | |
| | Total ... | ... | | | ... | ... | | 104 | | | ... | 104 | |
| Ratnagirí Division. | ..... | ... | ..... | ..... | ... | ... | Monsoon repairs to Guards' hut in the Camp Plantation. | 4 | Monsoon repairs to the Forest road between Camp Dápoli and Band Reserves. | 6 miles ... | 45 | ... | |
| | Total ... | ... | | | ... | ... | | 4 | | | 45 | 49 | |
| | Grand Total ... | 655 | | | 114 | 769 | | 1,729 | | | 3,033 | 4,762 | |

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 52.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Prosecutions for breaches of Forest Rules during 1893-94.*

| Forest Division and Civil District. | | Cases pending from 1892-93. | New Cases of the Year. | | | | | Total cases. | Disposed of during the Year. | | | | | | Cases pending at close of year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Injury to Forest by fire. | Unauthorized felling or appropriation of wood and minor Forest produce. | Grazing without permission or in tracts in which grazing is prohibited. | Other offences. | Total new cases of the year. | | Convictions. | | Acquittals. | | Total. | | |
| | | | | | | | | | Cases. | Persons. | Cases. | Persons. | Cases. | Persons. | |
| Northern Kanara. Division, | A ... | 3 | 2 | 99 | ... | 1 | 102 | 105 | 32 | 32 | 73 | 79 | 105 | 111 | ... |
| | B ... | ... | ... | 27 | ... | 6 | 33 | 33 | 33 | 80 | ... | ... | 33 | 80 | ... |
| | C ... | ... | 32 | 8 | ... | 1 | 41 | 41 | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 3 | 34 | 134 | ... | 8 | 176 | 179 | 65 | 112 | 73 | 79 | 138 | 191 | ... |
| Central Kanara. Division, | A ... | ... | 2 | 18 | ... | 5 | 25 | 25 | 15 | 23 | 6 | 10 | 21 | 33 | 4 |
| | B ... | ... | ... | 7 | ... | ... | 7 | 7 | 6 | 6 | 1 | 1 | 7 | 7 | ... |
| | C ... | ... | ... | 12 | ... | ... | 12 | 12 | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | ... | 2 | 37 | ... | 5 | 44 | 44 | 21 | 29 | 7 | 11 | 28 | 40 | 4 |
| Southern Kanara. Division, | A ... | ... | ... | 36 | ... | ... | 36 | 36 | 31 | 37 | 3 | 4 | 34 | 41 | 2 |
| | B ... | ... | ... | 1 | ... | ... | 1 | 1 | 1 | 1 | ... | ... | 1 | 1 | ... |
| | C ... | ... | 53 | ... | ... | ... | 53 | 53 | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | ... | 53 | 37 | ... | ... | 90 | 90 | 32 | 38 | 3 | 4 | 35 | 42 | 2 |
| Belgaum Division ... | A ... | 6* | ... | 20 | 6 | ... | 26 | 32 | 26 | 61 | 5 | 15 | 31 | 76 | 1 |
| | B ... | ... | 1 | 83 | 1 | 1 | 86 | 86 | 84 | 84 | 2 | 2 | 86 | 86 | ... |
| | C ... | ... | 136 | 47 | ... | ... | 183 | 183 | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 6 | 137 | 150 | 7 | 1 | 295 | 301 | 110 | 145 | 7 | 17 | 117 | 162 | 1 |

* Error in the Divisional Return for 1892-93 now rectified.

A means cases taken into Court.

B means cases disposed of under Section 67 of the Indian Forest Act, 1878.

C means undetected cases.

FORM No. 52—*continued.*

| Forest Division and Civil District. | | Cases pending from 1892-93. | New Cases of the Year. | | | | | Total cases. | Disposed of during the Year. | | | | | | Cases pending at close of year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Injury to Forest by fire. | Unauthorized felling or appropriation of wood and minor Forest Produce. | Grazing without permission or in tracts in which grazing is prohibited. | Other offences. | Total new cases of the year. | | Convictions. | | Acquittals. | | Total. | | |
| | | | | | | | | | Cases. | Persons. | Cases. | Persons. | Cases. | Persons. | |
| Dharwar Division ... | A ... | 2 | 1 | 12 | 2 | 2 | 17 | 19 | 12 | 30 | 5 | 11 | 17 | 41 | 2 |
| | B ... | ... | ... | 36 | ... | 2 | 38 | 38 | 5 | 13 | 30† | 49 | 35 | 62 | 3 |
| | C ... | ... | ... | 40 | 1 | ... | 41 | 41 | ... | .. | ... | ... | ... | ... | ... |
| | Total ... | 2 | 1 | 78 | 3 | 4 | 96 | 98 | 17 | 43 | 35 | 60 | 52 | 103 | 5 |
| Bijápur Division ... | A ... | ... | ... | 10 | ... | ... | 10 | 10 | 10 | 21 | ... | ... | 10 | 21 | ... |
| | B ... | ... | ... | 12 | ... | ... | 12 | 12 | 12 | 42 | ... | ... | 12 | 42 | ... |
| | C ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | ... | ... | 22 | ... | ... | 22 | 22 | 22 | 63 | ... | ... | 22 | 63 | ... |
| Kolábá Division ... | A ... | 4 | 2 | 261 | ... | 24 | 287 | 291 | 187 | 373 | 33 | 66 | 220 | 439 | 71 |
| | B ... | ... | 1 | 176 | ... | 4 | 181 | 181 | 181 | 517 | ... | ... | 181 | 517 | ... |
| | C ... | ... | 10 | 270 | 2 | ... | 282 | 282 | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 4 | 13 | 707 | 2 | 28 | 750 | 754 | 368 | 890 | 33 | 66 | 401 | 956 | 71 |
| Ratnagiri Division ... | A ... | 1 | 2 | 56 | ... | 4 | 62 | 63 | 43 | 45 | 18 | 23 | 61 | 68 | 2 |
| | B ... | ... | ... | 39 | ... | 10 | 49 | 49 | 39 | 86 | ... | ... | 39 | 86 | 10 |
| | C ... | ... | 1 | 15 | ... | ... | 16 | 16 | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 1 | 3 | 110 | ... | 14 | 127 | 128 | 82 | 131 | 18 | 23 | 100 | 154 | 12 |
| Grand Total ... | A ... | 16 | 9 | 512 | 8 | 36 | 565 | 581 | 356 | 622 | 143 | 208 | 499 | 830 | 82 |
| | B ... | ... | 2 | 381 | 1 | 23 | 407 | 407 | 361 | 829 | 33 | 52 | 394 | 881 | 13 |
| | C ... | ... | 232 | 392 | 3 | 1 | 628 | 628 | ... | ... | ... | ... | ... | ... | ... |

† These cases were let off by the Divisional Forest Officer with warning.

A means cases taken into Court.

B means cases disposed of under Section 67 of the Indian Forest Act, 1878.

C means undetected cases.

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

B 1106—10 s.c.

FORM No 52 A.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Statement showing the Number of Cases of Misappropriation of Timber and Minor Produce of the several Districts of the Southern Circle, for the years 1892-93 and 1893-94.*

| Division. | NUMBER OF CASES OF MISAPPROPRIATION OF | | | | | | | | | | | | | | | | | | | | | | Total Cases of Misappropriation. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Timber. | | Firewood. | | Minor Produce. | | | | | | | | | | | | | | | | | | | | |
| | | | | | Leaves. | | Stones, Earth and Minerals. | | Cinnamon, Matti, Kaki and Bábul barks. | | Tárwárd bark. | | Canes and Kárvi. | | Harda. | | Mangoes. | | Hemp. | | Thorns. | | Total. | | | |
| | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | 1892-93. | 1893-94. | |
| Northern Division, Kanara ... ... | 19 | 43 | 100 | 70 | 4 | 3 | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | 7 | 4 | 13 | 123 | 126 | |
| Central Division, Kanara ... ... | 17 | 22 | 3 | ... | 16 | 3 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 16 | 3 | 36 | 25 | |
| Southern Division, Kanara ... ... | 7 | 22 | ... | 2 | 97 | 13 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 97 | 13 | 104 | 37 | |
| Belgaum Division... ... ... ... | 111 | 34 | 332 | 66 | 2 | ... | 15 | ... | 1 | ... | 1 | ... | 1 | ... | 4 | 2 | ... | 1 | ... | ... | 10 | ... | 34 | 3 | 477 | 103 | |
| Dharwar do. ... ... ... ... | 34 | 18 | 21 | 22 | ... | ... | 2 | 4 | ... | ... | 2 | 3 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 4 | 8 | 59 | 48 | |
| Bijápur do. ... ... ... ... | 2 | 2 | 79 | 17 | 1 | ... | 7 | 1 | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | 3 | ... | 11 | 3 | 92 | 22 | |
| Kolábá do. ... ... ... ... | 153 | 372 | 107 | 65 | ... | ... | 3 | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 4 | ... | 264 | 437 | |
| Ratnagiri do. ... ... ... ... | 86 | 88 | 6 | 6 | 57 | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 57 | 1 | 149 | 95 | |
| Total ... | 429 | 601 | 648 | 248 | 177 | 19 | 27 | 7 | 1 | 1 | 3 | 5 | 1 | ... | 5 | 2 | ... | 1 | ... | 1 | 13 | 8 | 227 | 44 | 1,304 | 893 | |

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J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

## FORM No. 52 B.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Statement showing the Number of Cases dealt with under Section 67 of the Indian Forest Act and the Amounts paid as compensation in 1893-94, as compared with the preceding year.*

| Divisions. | 1892-93. | | | | | | 1893-94. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases compounded. | | | | | Amount realized. | Cases compounded. | | | | | Amount realized. |
| | For misappropriation of | | | For | Total. | | For misappropriation of | | | For | Total. | |
| | (a) Timber. | (b) Firewood. | (c) Minor Forest Produce. | (d) Other offences. | | | (a) Timber. | (b) Firewood. | (c) Minor Forest Produce. | (d) Other offences. | | |
| | | | | | | Rs. | | | | | | Rs. |
| Northern Division of Kanara. | 11 | 2 | ... | ... | 13 | 89 | 21 | 4 | 2 | 6 | 33 | 409 |
| Central Division of Kanara... | 20 | ... | ... | ... | 20 | 103 | 5 | ... | 1 | ... | 6 | 17 |
| Southern Division of Kanara. | 4 | ... | ... | ... | 4 | 53 | 1 | ... | ... | ... | 1 | 9 |
| Belgaum Division ... ... | 95 | 317 | 27 | 36 | 475 | 580 | 23 | 58 | ... | 3 | 84 | 36 |
| Dharwar* do. ... ... | 16 | 12 | 2 | 7 | 37 | 83 | ... | 3 | 1 | 1 | 5 | 1 |
| Bijápur do. ... ... | 2 | 70 | 9 | 2 | 83 | 188 | 2 | 9 | 1 | ... | 12 | 15 |
| Kolába do. ... ... | 88 | 57 | ... | 9 | 154 | 871 | 96 | 58 | 6 | 21 | 181 | 618 |
| Ratnagiri do. ... ... | 57 | 6 | 55 | 5 | 123 | 612 | 36 | 2 | 1 | ... | 39 | 71 |
| Total ... | 293 | 464 | 93 | 59 | 909 | 2,579 | 184 | 134 | 12 | 31 | 361 | 1,176 |

* In the Dharwar Division 30 cases were let off with warning.

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J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 52 C.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Statement showing the Number of Cases in which Fines amounting to One Rupee, Two Rupees and so on, up to the maximum, were respectively inflicted during 1893-94.*

| Division. | Number of Fines inflicted. | | | | | | | | | | | | | | | Total. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Rupee 1 and under. | Rupees 2 and under. | Rupees 3 and under. | Rupees 4 and under. | Rupees 5 and under. | Rupees 6 and under. | Rupees 7 and under. | Rupees 8 and under. | Rupees 9 and under. | Rupees 10 and under. | Rupees 11 and under. | Rupees 13 and under. | Rupees 18 and under. | Rupees 20 and under. | Rupees 25 and under. | Rupees 50 and under. | Number. | Amount. |
| | | | | | | | | | | | | | | | | | | Rs. |
| Northern Division, Kanara ... | 15 | 4 | 6 | 1 | 1 | 2 | 1 | 1 | ... | ... | ... | ... | ... | ... | 1 | 1 | 33 | 409 |
| Central Division, Kanara ... ... | 1 | 2 | 2 | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | 6 | 17 |
| Southern Division, Kanara ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 1 | 9 |
| Belgaum Division ... ... ... | 80 | ... | 2 | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 84 | 36 |
| Dharwar do. ... ... ... | *5 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 5 | 1 |
| Bijápur do. ... ... ... | 10 | 1 | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | 12 | 15 |
| Kolába do. ... ... ... | 82 | 28 | 16 | 12 | 11 | 7 | 8 | 5 | 2 | 2 | *3 | 1 | 1 | 1 | 2 | ... | 181 | 618 |
| Ratnagiri do. ... ... ... | 26 | 8 | ... | 1 | ... | ... | 1 | ... | ... | 2 | ... | ... | ... | 1 | ... | ... | 39 | 71 |
| Total ... | 219 | 43 | 26 | 14 | 14 | 9 | 10 | 7 | 4 | 4 | 3 | 1 | 1 | 2 | 3 | 1 | 361 | 1,176 |

* Compensation was levied only in 5 cases. 30 cases were let off with warning. (*Vide* Form No. 52).

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 53.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Area of Forest Tracts protected from Fire during 1893-94.*

| Division. | Forest Tracts. | Year in which protection commenced. | Area protected during 1892-93. | Area attempted to be protected. | Failures. | Area actually protected. | Cost. | REMARKS. |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | Acres. | Acres. | Acres. | Acres. | Rs. | |
| Northern Division, Kanara. | Haliyál | 1887-88 | 190,731 | 159,494 | 121 | 159,373 | 5,418 | |
| | Kárwár | ,, | 83,213 | 117,200 | 68 | 117,132 | 2,347 | |
| | Supa | 1888-89 | 51,876 | 52,017 | 51 | 51,966 | 2,714 | |
| | Total | ... | 325,820 | 328,711 | 240 | 328,471 | 10,479 | |
| Central Divison, Kanara. | Yellápur | 1888-89 | 59,966 | 84,542 | 1,613 | 82,929 | 2,545 | |
| | Mundgod | ,, | 36,550 | 57,057 | 173 | 56,884 | 2,572 | |
| | Ankola | ,, | 19,065 | 26,013 | 103 | 25,910 | 817 | |
| | Total | ... | 115,581 | 167,612 | 1,889 | 165,723 | 5,934 | |
| Southern Division, Kanara. | Sirsi | 1887-88 | * 45,772 | ... | ..... | ..... | ... | * The area was transferred to the Central Division of Kánara. |
| Belgaum Division. | Chikodi | 1883-84 | 954 | 1,954 | 35 | 1,919 | 69 | |
| | Khánápur | 1884-85 | 86,679 | 93,327 | 2,221 | 91,106 | 1,922 | |
| | Belgaum | 1886-87 | 58,586 | 60,708 | 2,011 | 58,697 | 274 | |
| | Gokák-Sampgaon | 1887-88 | 15,462 | 22,494 | 179 | 22,315 | 194 | |
| | Total | ... | 161,681 | 178,483 | 4,446 | 174,037 | 2,459 | |
| Dharwar Division. | Dharwár | 1888-89 | 2,238 | 3,668 | 873 | 2,795 | 138 | |
| | Kalghatgi | ,, | 7,062 | 7,112 | 1,810 | 5,302 | 127 | |
| | Bankápur | ,, | 4,646 | 5,276 | 875 | 4,401 | 102 | |
| | Hángal | ,, | 4,582 | 3,997 | 243 | 3,754 | 95 | |
| | Kod | ,, | 8,015 | 8,041 | 1,835 | 6,206 | 85 | |
| | Gadag | ,, | 6,233 | 6,411 | 903 | 5,508 | 22 | |
| | Total | ... | 32,776 | 34,505 | 6,539 | 27,966 | 569 | |
| Bijápur Division. | Bádámi | 1889-90 | 15,607 | 32,777 | * 1,583 | 31,194 | 270 | |
| | Bágalkot | ,, | 13,342 | 44,871 | 713 | 44,158 | 254 | |
| | Total | ... | 28,949 | 77,648 | 2,296 | 75,352 | 524 | |
| Kolábá Division. | Alibág | 1892-93 | 19,370 | 1,546 | ..... | 1,546 | 20 | |
| | Nágothna | ,, | 10,285 | 1,653 | 25 | 1,628 | 30 | |
| | Roha | ,, | ..... | 4,826 | 609 | 4,217 | 23 | |
| | Mángaon | ,, | 1,935 | 368 | 1 | 367 | 11 | |
| | Mahád | ,, | 3,527 | 266 | ..... | 266 | 15 | |
| | Panvel | ,, | 8,465 | 1,178 | ..... | 1,178 | 40 | |
| | Karjat | ,, | 4,093 | 28,007 | 153 | 27,854 | 70 | |
| | Khálápur | 1887-88 | 8,841 | 7,134 | 116 | 7,018 | 27 | |
| | Total | ... | 56,516 | 44,978 | 904 | 44,074 | 236 | |
| Ratnagiri Division. | Dápoli | 1889-90 | 2,510 | 2,516 | 8 | 2,508 | 12 | |
| | Khed | 1892-93 | 5,222 | 5,222 | 32 | 5,190 | ... | |
| | Chiplún | ,, | 799 | 799 | 2 | 797 | ... | |
| | Sangameshvar | ,, | 3,108 | 3,108 | ..... | 3,108 | .. | |
| | Ratnagiri | ,, | 270 | 270 | ..... | 270 | ... | |
| | Rajápur | ,, | 320 | 320 | ..... | 320 | ... | |
| | Devgad | ,, | 11 | 11 | ..... | 11 | ... | |
| | Málvan | 1889-90 | 625 | 625 | ..... | 625 | 5 | |
| | Vengurla | 1892-93 | 10 | 10 | ..... | 10 | ... | |
| | Total | ... | 12,875 | 12,881 | 42 | 12,839 | 17 | |
| | Grand Total | ... | 779,970 | 844,818 | 16,356 | 828,462 | 20,218 | |

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 54.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Area closed and open to Grazing during 1893-94.*

| Division. | AREA IN SQUARE MILES. | | | | | | REMARKS. |
|---|---|---|---|---|---|---|---|
| | Closed to all Animals. | | Closed to browsers (Camels, Goats or Sheep). | | Open to all Animals. | Total Area. | |
| | Whole year. | Part of year. | Whole year. | Part of year. | Whole year. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Northern Division, Kanara ... | 188 | ... | 3 | ... | 998 | 1,189 | |
| Central Division, Kanara ... | 273 | ... | ... | ... | 692 | 965 | |
| Southern Division, Kanara ... | 121 | ... | ... | ... | 1,318 | 1,439 | |
| Belgaum Division ... ... | 36 | ... | 528 | ... | 117 | 681 | |
| Dharwar do. ... ... | 100 | ... | ... | ... | 331 | 431 | |
| Bijápur do. ... ... | 45 | ... | 200 | ... | ... | 245 | |
| Kolábá do. ... ... | 70 | ... | ... | ... | 373 | 443 | |
| Ratnagiri do. ... ... | 17 | ... | ... | ... | 3 | 20 | |
| Total ... | 850 | ... | 731 | ... | 3,832 | 5,413 | |

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

*Belgaum, 29th September 1894.*

B 1106—11 S.C.

FORM No. 55.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Return of Grazing in the State Forests during 1893-94.*

| Division. | GRAZING ON PAYMENT—NUMBER OF ANIMALS. | | | | | | | | | | | | | GRAZING FREE—NUMBER OF ANIMALS. | | | | | | | | | | | | Grand total of value at full rates. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | At full rates. | | | | | | At privileged rates. | | | | | | | By right under Setlement. | | | | | | During pleasure of Government, or otherwise than under Settlement. | | | | | | Total value of Fees at full rates. | |
| | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Fees received. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Fees received. Actual. | Fees received. Value at full rates. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Value of Fees at full rates. | Buffaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Value of Fees at full rates. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | | | | | | Rs. | | | | | | Rs. | Rs. | | | | | | | | | | | | Rs. | Rs. | Rs. |
| Northern Division, Kanara ... | 361 | 371 | ... | ... | ... | 732 | 28,330 | 46,081 | 1,073 | ... | 1 | 9,369 | 74,479 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 75,211 |
| Central Division, Kanara ... | 163 | 206 | ... | ... | ... | 369 | 12,678 | 51,657 | 700 | ... | ... | 8,087 | 64,423 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 64,792 |
| Southern Division, Kanara ... | 93 | ... | ... | ... | ... | 93 | 13,207 | 68,318 | 2,133 | ... | ... | 10,324 | 81,792 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 81,885 |
| Belgaum Division ... ... | 2,958 | 9,532 | 42,623 | ... | 161 | 14,273 | 7,673 | 47,770 | 20,942 | ... | 55 | 18,289 | 36,578 | ... | ... | ... | ... | ... | ... | 16,126 | 46,388 | 19 | ... | ... | 39,325 | 39,325 | 90,176 |
| Dharwar do. ... ... | 2,890 | 6,567 | 22,482 | ... | ... | 8,896 | 12,656 | 48,055 | 34,638 | ... | ... | 20,132 | 39,264 | ... | ... | ... | ... | ... | ... | 389 | 2,274 | 2,414 | ... | ... | 2,033 | 2,033 | 50,193 |
| Bijápur do. ... ... | 744 | 2,768 | 1,720 | ... | 9 | 2,348 | 5,074 | 22,337 | 22,781 | ... | 11 | 9,551 | 19,103 | ... | ... | ... | ... | ... | ... | 378 | 5,475 | ... | ... | ... | 3,114 | 3,114 | 24,565 |
| Kolába do. ... ... | 456 | 716 | ... | ... | ... | 517 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 130 | 63 | 17 | ... | ... | 45 | 45 | 562 |
| Ratnagiri do. ... ... | 2 | ... | ... | ... | ... | 2 | 37 | 2 | ... | ... | ... | 19 | 38 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 40 |
| Total ... | 7,667 | 20,160 | 66,825 | ... | 170 | 27,230 | 79,655 | 284,220 | 82,267 | ... | 67 | 75,771 | 315,677 | ... | ... | ... | ... | ... | ... | 17,023 | 54,200 | 2,450 | ... | ... | 44,517 | 44,517 | 387,424 |

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 56.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Area of Plantations, 1893-94.*

| Division. | Name of Plantation. | Area in Acres. | | | | Receipts. | Charges. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | On 1st July 1893. | Added during the year. | Excluded during the year. | Area on 30th June 1894. | Of the year. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | *Regular Plantations.* | Acres. | Acres. | Acres. | Acres. | Rs. | Rs. | |
| Northern Division, Kanara. | Kadra | 357 | ... | ... | 357 | ... | 515 | |
| | Mardi | 110 | ... | ... | 110 | | | |
| | Sulgeri | 110 | ... | ... | 110 | ... | 79 | |
| | Karwar | 123 | ... | ... | 123 | 672 | ... | |
| | Bingi | 20 | ... | ... | 20 | | | |
| | Arge | 36 | ... | ... | 36 | ... | ... | |
| | Birchi | 221 | ... | ... | 221 | ... | ... | |
| | Singatgery | 83 | ... | ... | 83 | ... | ... | |
| | Bomanhalli | 200 | ... | ... | 200 | ... | ... | |
| Central Division, Kanara. | Devarbail | 21 | ... | ... | 21 | 9 | 73 | |
| | Arbail | 5 | ... | ... | 5 | ... | ... | |
| Southern Division, Kanara. | Kasarcode | 298 | ... | ... | 298 | 325 | ... | |
| Belgaum Division ... | Kalasgadde | 13 | ... | ... | 13 | ... | ... | |
| | Linganmath | 16 | ... | ... | 16 | ... | ... | |
| | Deshnur | 180 | 4 | ... | 184 | ... | 37 | |
| Dharwar Division... | Kalgeri | 21 | ... | ... | 21 | ... | 49 | |
| | Kambarganvi | 25 | ... | ... | 25 | | | |
| | Devikop | 29 | ... | ... | 29 | ... | 4 | |
| | Kalkundi | 275 | ... | ... | 275 | ... | 20 | |
| | Hirur | 12 | ... | ... | 12 | ... | ... | |
| Bijápur Division ... | Mamdápur | 174 | ... | ... | 174 | ... | ... | |
| | Anantpur | 90 | ... | ... | 90 | ... | ... | |
| | Shivpur | 12 | ... | ... | 12 | ... | ... | |
| Kolába Division ... | Rámdharni | 50 | ... | ... | 50 | ... | ... | |
| | Rajwadi | 12 | ... | ... | 12 | 16 | 84 | |
| | Chochi | 6 | ... | ... | 6 | ... | ... | |
| | Neral | 3 | ... | ... | 3 | ... | ... | |
| | Bháliwadi | 13 | ... | ... | 13 | ... | ... | |
| | Boregaom | 6 | ... | ... | 6 | ... | ... | |
| | Kharvandi Kondane | 2 | ... | ... | 2 | ... | ... | |
| | Khadve | 2 | ... | ... | 2 | ... | ... | |
| | Beed | 1 | ... | ... | 1 | ... | ... | |
| | Palaspuri | 1 | ... | ... | 1 | ... | ... | |
| | Sugwe | 1 | ... | ... | 1 | ... | ... | |
| | Puli | 1 | ... | ... | 1 | ... | ... | |
| | Savali | 10 | ... | ... | 10 | ... | ... | |
| | Paturne | 1 | ... | ... | 1 | ... | ... | |
| | Ambivli | 1 | ... | ... | 1 | ... | ... | |
| | Adoşi | 97 | ... | ... | 97 | ... | ... | |
| | Lavji | 71 | ... | ... | 71 | ... | ... | |
| | Umbarvira | 15 | ... | ... | 15 | ... | ... | |
| | Jambrug | 63 | ... | ... | 63 | ... | ... | |
| | Sungde | 68 | ... | ... | 68 | ... | ... | |
| | Khopoli | 45 | ... | ... | 45 | ... | ... | |
| | Bhamaji | 86 | ... | ... | 86 | ... | ... | |
| | Nowse | 32 | ... | ... | 32 | ... | ... | |
| | Honad | 20 | ... | ... | 20 | ... | ... | |
| | Kumboli | 46 | ... | ... | 46 | ... | ... | |
| | Kharsundi | 38 | ... | ... | 38 | ... | ... | |
| | Vanaosal | 2 | ... | ... | 2 | ... | ... | |
| | Bhilaoli | 37 | ... | ... | 37 | ... | ... | |
| | Kalothe Mokasi | 53 | ... | ... | 53 | ... | ... | |
| | Mandop | 41 | ... | ... | 41 | — | ... | |
| | Vinegaon | 3 | ... | ... | 3 | ... | ... | |
| | Kalothe Rayote | 7 | ... | ... | 7 | ... | ... | |
| | Nudao | 2 | ... | ... | 2 | ... | ... | |
| | Ningdoli | 1 | ... | ... | 1 | ... | ... | |
| | Dhamni | 2 | ... | ... | 2 | ... | ... | |
| | Vadgaon | 38 | ... | ... | 38 | ... | ... | |
| | Kansoli | 8 | ... | ... | 8 | ... | ... | |
| | Nodhel | 24 | ... | ... | 24 | ... | ... | |
| | Loniwáli | 1 | ... | ... | 1 | ... | ... | |
| | Vaverle | 11 | ... | ... | 11 | ... | ... | |
| | Pali Budruk | 9 | ... | ... | 9 | ... | ... | |
| | Vadvihir | 6 | ... | ... | 6 | ... | ... | |
| | Manivli Manawli | 13 | ... | ... | 13 | ... | ... | |
| | Varse | 323 | ... | ... | 323 | ... | ... | |
| | Boregaon Khurd | 119 | ... | ... | 119 | ... | ... | |
| | Sudewadi | 190 | ... | ... | 190 | ... | ... | |
| | Khálápur | 3 | ... | ... | 3 | ... | ... | |
| | Ghodiaoli | 7 | ... | ... | 7 | ... | ... | |
| Ratnagiri Division ... | Dápoli | 98 | 20 | ... | 118 | 12 | 59 | |
| | Total, Regular Plantations... | 4,120 | 24 | ... | 4,144 | 1,034 | 920 | |

## FORM No. 56—*continued.*

| Division. | Name of Plantation. | Area in Acres. | | | | Receipts. | Charges. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | On 1st July 1893. | Added during the year. | Excluded during the year. | Area on 30th June 1894. | Of the year. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | *Cultural Operations.* | Acres. | Acres. | Acres. | Acres. | Rs. | Rs. | |
| Central Division, Kanara. | Sahasravali | 12 | ... | ... | 12 | ... | ... | |
| | Yellápur | 26 | ... | ... | 26 | 4 | 49 | |
| | Hárwáda | 1 | ... | ... | 1 | 13 | ... | |
| | Báleguli | 8 | ... | ... | 8 | 3 | 136 | |
| | Hulihond | 10 | ... | ... | 10 | ... | 296 | |
| | Sakalben | 4 | ... | ... | 4 | 3 | 147 | |
| | Kirwatti | ... | 2 | ... | 2 | ... | ... | |
| | Wantmane | ... | 5 | ... | 5 | ... | 64 | |
| | Devangudda | ... | 39 | ... | 39 | ... | 25 | |
| Southern Division, Kanara. | Banwási | 27 | ... | ... | 27 | ... | ... | |
| | Anegundi | 7 | ... | ... | 7 | ... | ... | |
| | Kalkatti | 2 | ... | ... | 2 | ... | ... | |
| Belgaum Division | Konnur | 200 | ... | ... | 200 | ... | ... | |
| | Kanburgi | 5 | ... | ... | 5 | ... | ... | |
| | Máskenhatti | 2 | ... | ... | 2 | ... | ... | |
| | Hemadge | ... | 400 | ... | 400 | ... | 20 | |
| Dharwar Division | Kambárganvi | 375 | ... | ... | 375 | ... | ... | |
| | Hosur | 307 | ... | ... | 307 | ... | ... | |
| | Hunshikumri | 300 | ... | ... | 300 | ... | ... | |
| | Karkikop | 1 | ... | ... | 1 | ... | ... | |
| | Dhundshi | 80 | ... | ... | 80 | ... | ... | |
| | Allipur | 16 | ... | ... | 16 | ... | ... | |
| | Bábápur | 127 | ... | ... | 127 | ... | ... | |
| | Channikatti | 10 | ... | ... | 10 | ... | ... | |
| | Bassápur | 10 | ... | ... | 10 | ... | ... | |
| | Harikatti | 2 | ... | ... | 2 | ... | ... | |
| | Banihatti | 42 | ... | ... | 42 | ... | ... | |
| | Holtikota | 200 | ... | ... | 200 | ... | ... | |
| | Rágikallápur | 25 | ... | ... | 25 | ... | ... | |
| | Kalkeri | 200 | ... | ... | 200 | ... | ... | |
| | Galginkatti | 470 | ... | ... | 470 | ... | ... | |
| | Tersikop | 300 | ... | ... | 300 | ... | ... | |
| | Kalkundi | 100 | ... | ... | 100 | ... | ... | |
| | Hindasgiri | 400 | ... | ... | 400 | ... | ... | |
| | Halekote-Chikeri | 706 | ... | ... | 706 | ... | ... | |
| | Dudihalli | 51 | ... | ... | 51 | ... | ... | |
| | Nidnigal | 44 | ... | ... | 44 | ... | ... | |
| | Balapur | 8 | ... | ... | 8 | ... | ... | |
| | Chikbar | 46 | ... | ... | 46 | ... | ... | |
| | Medleri | 144 | ... | ... | 144 | ... | ... | |
| | Dambal | 463 | ... | ... | 463 | ... | ... | |
| | Sankadwadak | 268 | ... | ... | 268 | ... | ... | |
| | Nabápur | 172 | ... | ... | 172 | ... | ... | |
| Bijápur Division | Mamdápur | 216 | ... | ... | 216 | ... | ... | |
| | Kaládgi | 195 | ... | ... | 195 | ... | ... | |
| | Jaknur | 9 | ... | ... | 9 | ... | ... | |
| | Hosur | 2 | ... | ... | 2 | ... | ... | |
| | Manglur | 2 | ... | ... | 2 | ... | ... | |
| Kolábá Division | Sattád | 81 | ... | ... | 81 | ... | ... | |
| | Ektád | 5 | ... | ... | 5 | ... | ... | |
| | Several places in Karjat | 20 | ... | ... | 20 | ... | ... | |
| | Do. in Khálápur | 2 | ... | ... | 2 | ... | ... | |
| | Total, Cultural Operations... | 5,703 | 446 | ... | 6,149 | 23 | 707 | |
| | Grand Total ... | 9,823 | 470 | ... | 10,293 | 1,057 | 1,627 | |

*Belgaum, 29th September 1894.*

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 57.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Outturn (in cubic feet, solid) of Timber and Fuel, during the year 1893-94, and Agency of Exploitation.*

| Division. | TIMBER IN THE ROUGH; LOGS. | | | | | TIMBER IN THE ROUGH; POLES. | | | | | SAWN OR SQUARED TIMBER. | | | | | MISCELLANEOUS. | | | | | FUEL. | | | | | TOTAL. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Government. | Purchasers. | Free-grantees. | Right-holders. | Total. | Government. | Purchasers. | Free-grantees. | Right-holders. | Total. | Government. | Purchasers. | Free-grantees. | Right-holders. | Total. | Government. | Purchasers. | Free-grantees. | Right-holders. | Total. | Government. | Purchasers. | Free-grantees. | Right-holders. | Total. | Outturn. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. | C. ft. |
| Northern Division of Kanara ... ... | 52,488 | 59,531 | 10,708 | ... | 122,727 | 21,727 | 2,830 | ... | ... | 24,557 | 251,578 | 12,973 | 5,246 | ... | 269,797 | 7,495 Bamboos No. 3,422 ..... Sandalwood Khandis 28-12-26 | 525 Bamboos No. 2,483,133 ..... Bamboos No. 992,420 | 1,949 Bamboos No. 59,762 ..... Bamboos No. 12,113 | ... | 9,069 Bamboos No. 2,546,317 ..... Sandalwood Khandis 28-12-26, Bamboos No. 1,004,533 | 775,077 | 989,795 | 1,723 | ... | 1,766,597 | 2,192,747 Bamboos No. 2,546,317 419,491 Sandalwood Khandis 28-12-26, Bamboos 1,004,533 |
| Central Division of Kanara ... ... | 4,916 | 34,403 | ... | ... | 39,319 | 24,950 | 874 | 1,485 | ... | 27,309 | 195,075 | 7,969 | 19,367 | ... | 222,411 | | | | | | 32,413 | 98,039 | ... | ... | 130,452 | |
| Southern Division of Kanara ... ... | 5,170 | 52,653 | 23,966 | ... | 81,789 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ..... Sandalwood Khandis 76-3-18 | ..... Bamboos No. 161,903 | ..... Bamboos No. 2,750 | ... | ..... Sandalwood Khandis 76-3-18, Bamboos No. 164,653 | 14,400 | 212,569 | ... | ... | 226,969 | 308,758 Sandalwood Khandis 76-3-18, Bamboos No. 164,653 |
| Belgaum Division ... | 224 | 74,600 | ... | ... | 74,824 | 49,827 | 35,371 | 1,626 | ... | 86,824 | 12,078 | 310 | 38 | ... | 12,426 | 15,023 Sandalwood trees 132, Sandalwood poles, pieces, &c. 1,280 | 613 Bamboos No. 509,471, Sandalwood tree 1, Sandalwood pieces 3 | ..... Bamboos No. 2,675 | ... | 15,636 Bamboos No. 512,146, Sandalwood trees 133, Sandalwood poles, pieces, &c., 1,283 | 3,053,435 | 384,930 | 1,188 | ... | 3,439,559 | 3,629,269 Bamboos No. 512,146, Sandalwood trees 133, Sandalwood poles, pieces, &c., 1,283 |
| Dharwar do. ... | ... | ... | ... | ... | ... | 151,320 | 1,541 | ... | ... | 152,861 | ... | ... | ... | ... | ... | ..... Sandalwood Khandis 13-8-2 | 100 Bamboos No. 363,146, Sandalwood trees, roots, branches, &c., No. 7,769 | ..... | ... | 100 Bamboos No. 363,146, Sandalwood Khandis 13-8-2, Sandalwood trees, &c., No. 7,769 | 25,848 | 58,140 | ... | ... | 83,988 | 236,949 Bamboos No. 363,146, Sandalwood Khandis 13-8-2, Sandalwood trees, &c., No. 7,769 |
| Bijápur do. ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ..... | 6,069 Bamboos No. 346 Sandalwood trees 14 | ..... | ... | 6,069 Bamboos No. 346, Sandalwood trees 14 | ... | 186,226 | ... | ... | 186,226 | 192,295 Bamboos No. 346, Sandalwood trees 14 |
| Kolába do. ... | 4,971 | 11,231 | ... | ... | 16,202 | 150,236 | 288,174 | 10,770 | ... | 449,180 | ... | ... | ... | ... | ... | 24,062 | ..... | ..... | ... | 24,062 | 93,590 | 1,009,350 | ... | ... | 1,102,940 | 1,592,384 |
| Ratnagiri do. ... | ... | ... | ... | ... | ... | 4,307 | 10,406 | 2,300 | ... | 17,013 | ... | ... | ... | ... | ... | ..... | 41,529 | ..... | ... | 41,529 | 4,100 | 95,782 | ... | ... | 99,882 | 158,424 |
| Total ... | 67,769 | 232,418 | 34,674 | ... | 334,861 | 402,367 | 339,196 | 16,181 | ... | 757,744 | 458,731 | 21,252 | 24,651 | ... | 504,634 | 46,580 Bamboos No. 3,422, Sandalwood Khandis 118-4-18, Sandalwood trees, poles, pieces, &c., No. 1,412 | 48,836 Bamboos No. 4,510,419 Sandalwood trees, pieces, &c., No. 7,187 | 1,049 Bamboos No. 77,300 | ... | 96,465 Bamboos No. 4,591,141, Sandalwood Khandis 118-4-18, Sandalwood trees, poles, pieces, &c., No. 9,199 | 3,998,863 | 3,034,837 | 2,913 | ... | 7,036,613 | 8,730,317 Bamboos No. 4,591,141, Sandalwood Khandis 118-4-18, Sandalwood trees, poles, pieces, &c., No. 9,199. |

*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 58.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

### *Outturn of Minor Forest Produce.*

| Division. | Description of Produce. | Produce removed or utilized. By Government Agency. Quantity. | By Government Agency. Value. | By purchasers. Quantity. | By purchasers. Value. | By free grants. Quantity. | By free grants. Value. | By right-holders. Quantity. | By right-holders. Value. | Total. Quantity. | Total. Value. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Rs. a. p. | | Rs. a. p. | | Rs. a. p. | | Rs. a. p. | | Rs. a. p. | |
| Northern Division of Kanara. | Honey | ... | ... | ... | 980 0 0 | ... | ... | ... | ... | ... | 980 0 0 | |
| | Shigekái | ... | ... | ... | 679 0 0 | ... | ... | ... | ... | ... | 679 0 0 | |
| | Nux vomica | ... | ... | ... | 35 0 0 | ... | ... | ... | ... | ... | 35 0 0 | |
| | Myrobollams ... ... Khandis. | 1,948 | 19,623 0 0 | ... | ... | ... | ... | ... | ... | 1,948 | 19,623 0 0 | |
| | Tapping fees on Baini trees | ... | ... | 677 | 42 0 0 | ... | ... | ... | ... | 677 | 42 0 0 | |
| | Ashoka barks ... ... Lbs. | 50 | 50 0 0 | ... | ... | ... | ... | ... | ... | 50 | 50 0 0 | |
| | Canes ... ... ... Head-loads. | ... | ... | 51 | 17 0 0 | ... | ... | ... | ... | 51 | 17 0 0 | |
| | Thorns ... ... ... Do. | 5 | 1 0 0 | ... | ... | ... | ... | ... | ... | 5 | 1 0 0 | |
| | Kárvi ... ... ... Do. | ... | ... | 120 | 2 0 0 | ... | ... | ... | ... | 120 | 2 0 0 | |
| | Shindoli branches ... Do. | ... | ... | 128 | 4 0 0 | ... | ... | ... | ... | 128 | 4 0 0 | |
| | Do. ... Cart-loads. | ... | ... | 139 | 70 0 0 | ... | ... | ... | ... | 139 | 70 0 0 | |
| | Stones ... ... ... Cubic Feet. | ... | ... | 22,400 | 35 0 0 | ... | ... | ... | ... | 22,400 | 35 0 0 | |
| | Sand... ... ... ... Do. | ... | ... | 50,600 | 32 0 0 | ... | ... | ... | ... | 50,600 | 32 0 0 | |
| | Plantains ... ... ... No. | ... | ... | 100 | 1 0 0 | ... | ... | ... | ... | 100 | 1 0 0 | |
| | Grass ... ... ... ... | 1 | 1 0 0 | ... | 72 0 0 | ... | ... | ... | ... | 1 | 73 0 0 | |
| | Ropes ... ... ... ... | 2 | 1 0 0 | ... | ... | ... | ... | ... | ... | 2 | 1 0 0 | |
| | Grazing fees ... ... ... | ... | ... | ... | 7,665 0 0 | ... | ... | ... | ... | ... | 7,665 0 0 | |
| | Total ... | ... | 19,676 0 0 | ... | 9,634 0 0 | ... | ... | ... | ... | ... | 29,310 0 0 | |
| Central Division of Kanara. | Grass ... ... ... Bundles. | 25,425 | 92 0 0 | 10,000 | 5 0 0 | ... | ... | ... | ... | 35,425 | 97 0 0 | |
| | Myrobollams ... ... Khandis. | 370 | 3,250 0 0 | ... | ... | ... | ... | ... | ... | 370 | 3,250 0 0 | |
| | Grazing fees ... ... ... | ... | ... | ... | 7,154 0 0 | ... | ... | ... | ... | ... | 7,154 0 0 | |
| | Earth ... ... ... Cubic Feet. | ... | ... | 1,746 | 6 0 0 | ... | ... | ... | ... | 1,746 | 6 0 0 | |
| | Stones ... ... ... Do. | ... | ... | 1,728 | 6 0 0 | ... | ... | ... | ... | 1,728 | 6 0 0 | |
| | Honey and wax ... ... ... | ... | ... | ... | 2,386 0 0 | ... | ... | ... | ... | ... | 2,386 0 0 | |
| | Fruit farms ... ... ... | ... | ... | ... | 19 0 0 | ... | ... | ... | ... | ... | 19 0 0 | |
| | Tapping fees on Baini trees ... | ... | ... | 410 | 26 0 0 | ... | ... | ... | ... | 410 | 26 0 0 | |
| | Horns and skins... ... ... | ... | ... | 12 | 11 0 0 | ... | ... | ... | ... | 12 | 11 0 0 | |
| | Baini trees ... ... ... ... | ... | ... | 6 | 6 0 0 | ... | ... | ... | ... | 6 | 6 0 0 | |
| | Thorns ... ... ... Cart-loads. | ... | ... | 11 | 1 0 0 | ... | ... | ... | ... | 11 | 1 0 0 | |
| | Shigekái ... ... ... Maunds. | 15·14 | 15 0 0 | ... | ... | ... | ... | ... | ... | 15·14 | 15 0 0 | |
| | Grass farm... ... ... ... | ... | ... | ... | 13 0 0 | ... | ... | ... | ... | ... | ·13 0 0 | |
| | Nux vomica farm... ... ... | ... | ... | ... | 21 0 0 | ... | ... | ... | ... | ... | 21 0 0 | |
| | Catechu farm ... ... ... | ... | ... | ... | 2,376 0 0 | ... | ... | ... | ... | ... | 2,376 0 0 | |
| | Ramphal and Rámpatri farm ... ... | ... | ... | ... | 481 0 0 | ... | ... | ... | ... | ... | 481 0 0 | |
| | Cinnamon ... ... ... ... | ... | ... | ... | 51 0 0 | ... | ... | ... | ... | ... | 51 0 0 | |
| | Canes ... ... ... Head-loads. | ... | ... | 54 | 14 0 0 | ... | ... | ... | ... | 54 | 14 0 0 | |
| | Total ... | ... | 3,357 0 0 | ... | 12,576 0 0 | ... | ... | ... | ... | ... | 15,933 0 0 | |
| Southern Division of Kanara. | Myrobollams ... ... Khandis. | 2,161 | 33,001 0 0 | ... | ... | ... | ... | ... | ... | 2,161 | 33,001 0 0 | |
| | Shigekái ... ... ... Do. | 64 | 1 204 0 0 | ... | ... | ... | ... | ... | ... | 64 | 1,204 0 0 | |
| | Grazing fees ... ... ... | ... | ... | ... | 8,825 0 0 | ... | ... | ... | ... | ... | 8,825 0 0 | |
| | Honey ... ... ... ... | ... | ... | ... | 1,564 0 0 | ... | ... | ... | ... | ... | 1,564 0 0 | |
| | Grass ... ... ... ... | ... | ... | ... | 8 0 0 | ... | ... | ... | ... | ... | 8 0 0 | |
| | Catechu ... ... ... ... | ... | ... | ... | 2,110 0 0 | ... | ... | ... | ... | ... | 2,110 0 0 | |
| | Rámpatri ... ... ... ... | ... | ... | ... | 1,423 0 0 | ... | ... | ... | ... | ... | 1,423 0 0 | |
| | Cinnamon ... ... ... ... | ... | ... | ... | 277 0 0 | ... | ... | ... | ... | ... | 277 0 0 | |
| | Wild pepper ... ... ... | ... | ... | ... | 21 0 0 | ... | ... | ... | ... | ... | 21 0 0 | |
| | Tapping fees on Baini trees ... | ... | ... | 2,679 | 167 0 0 | ... | ... | ... | ... | 2,679 | 167 0 0 | |
| | Nux vomica ... ... ... | ... | ... | ... | 27 0 0 | ... | ... | ... | ... | ... | 27 0 0 | |
| | Stones ... ... ... Cart-loads. | ... | ... | 1,653 | 155 0 0 | ... | ... | ... | ... | 1,653 | 155 0 0 | |
| | Canes ... ... ... Head-loads. | ... | ... | 1,083 | 383 0 0 | 2 | 1 0 0 | ... | ... | 1,085 | 384 0 0 | |
| | Palm trees ... ... ... | ... | ... | 26 | 40 0 0 | 1 | 1 0 0 | ... | ... | 27 | 41 0 0 | |
| | Stakes ... ... ... Cart-loads. | ... | ... | 5 | 1 0 0 | ... | ... | ... | ... | 5 | 1 0 0 | |
| | Thorns ... ... ... Do. | ... | ... | 14 | 2 0 0 | ... | ... | ... | ... | 14 | 2 0 0 | |
| | Soppu (green leaves for manure) ... ... ... Head-loads. | ... | ... | 90 | 23 0 0 | ... | ... | ... | ... | 90 | 23 0 0 | |
| | Shige-bark ... ... ... Maunds. | ... | ... | 726 | 160 0 0 | ... | ... | ... | ... | 726 | 160 0 0 | |
| | Creepers ... ... ... Head-loads. | ... | ... | 24 | 3 0 0 | ... | ... | ... | ... | 24 | 3 0 0 | |
| | Total ... | ... | 34,205 0 0 | ... | 15,189 0 0 | ... | 2 0 0 | ... | ... | ... | 49,396 0 0 | |
| Belgaum Division. | Myrobollams ... ... Khandis. | 5,809 | 77,166 0 0 | ... | ... | ... | ... | ... | ... | 5,809 | 77,166 0 0 | |
| | Grazing fees ... ... ... | ... | ... | ... | 29,469 0 0 | ... | ... | ... | ... | ... | 29,469 0 0 | |
| | Grass from Kurans ... ... | ... | ... | ... | 3,256 0 0 | ... | ... | ... | ... | ... | 3,256 0 0 | |
| | Grass from Depôts ... ... | ... | ... | ... | 25 0 0 | ... | ... | ... | ... | ... | 25 0 0 | |
| | Grass ... ... ... Head-loads. | ... | ... | 149 | 2 0 0 | ... | ... | ... | ... | 149 | 2 0 0 | |
| | Thorns ... ... ... Cart-loads. | ... | ... | 111 | 46 0 0 | ... | ... | ... | ... | 111 | 46 0 0 | |
| | Do. ... ... ... Head-loads. | ... | ... | 954 | 41 0 0 | ... | ... | ... | ... | 954 | 41 0 0 | |
| | Do. ... ... Bullock-loads. | ... | ... | 153 | 14 0 0 | ... | ... | ... | ... | 153 | 14 0 0 | |
| | Kárvi ... ... ... Cart-loads. | ... | ... | 370 | 275 0 0 | ... | ... | ... | ... | 370 | 275 0 0 | |
| | Canes ... ... ... Head-loads. | ... | ... | 224 | 14 0 0 | ... | ... | ... | ... | 224 | 14 0 0 | |
| | Shigekái farm ... ... Maunds. | ... | ... | 5,200 | 2,760 0 0 | ... | ... | ... | ... | 5,200 | 2,760 0 0 | |
| | Wax farm... ... ... Do. | ... | ... | 149 | 649 0 0 | ... | ... | ... | ... | 149 | 649 0 0 | |
| | Myrobollams farm ... Do. | ... | ... | 120 | 41 0 0 | ... | ... | ... | ... | 120 | 41 0 0 | |
| | Cinnamon farm ... ... Do. | ... | ... | 250 | 86 0 0 | ... | ... | ... | ... | 250 | 86 0 0 | |
| | Gum farm ... ... ... Do. | ... | ... | 347 | 937 0 0 | ... | ... | ... | ... | 347 | 937 0 0 | |
| | Tárwád bark ... ... Do. | ... | ... | 12,500 | 4,200 0 0 | ... | ... | ... | ... | 12,500 | 4,200 0 0 | |
| | Stones ... ... ... Cubic feet. | ... | ... | 11,477 | 57 0 0 | ... | ... | ... | ... | 11,477 | 57 0 0 | |
| | Do. ... ... ... Cart-loads. | ... | ... | 6,426 | 458 0 0 | ... | ... | ... | ... | 6,426 | 458 0 0 | |
| | Sand... ... ... ... Cubic Feet. | ... | ... | 900 | 1 0 0 | ... | ... | ... | ... | 900 | 1 0 0 | |
| | Muram ... ... ... Do. | ... | ... | 19,307 | 12 0 0 | ... | ... | ... | ... | 19,307 | 12 0 0 | |
| | Stones ... ... Donkey-loads. | ... | ... | 4,698 | 73 0 0 | ... | ... | ... | ... | 4,698 | 73 0 0 | |
| | Earth ... ... ... Cart-loads. | ... | ... | 74 | 9 0 0 | ... | ... | ... | ... | 74 | 9 0 0 | |
| | Tapping fees on toddy trees ... ... | ... | ... | 150 | 9 0 0 | ... | ... | ... | ... | 150 | 9 0 0 | |
| | Wild date-palm leaves ... Cart-loads. | ... | ... | 438 | 233 0 0 | ... | ... | ... | ... | 438 | 233 0 0 | |
| | Do. do. ... Head-loads. | ... | ... | 4,152 | 130 0 0 | ... | ... | ... | ... | 4,152 | 130 0 0 | |
| | Milk bush ... ... ... Do. | ... | ... | 9 | 1 0 0 | ... | ... | ... | ... | 9 | 1 0 0 | |
| | Bandurgi branches ... Do. | ... | ... | 386 | 18 0 0 | ... | ... | ... | ... | 386 | 18 0 0 | |
| | Do. do. ... Cart-loads. | ... | ... | 22 | 11 0 0 | ... | ... | ... | ... | 22 | 11 0 0 | |
| | Total ... | ... | 77,166 0 0 | ... | 42,827 0 0 | ... | ... | ... | ... | ... | 1,19,993 0 0 | |

FORM No. 58—*continued.*

| Division. | Description of Produce. | Produce removed or utilized. | | | | | | | | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | By Government Agency. | | By Purchasers. | | By Free-grants. | | By Right-holders. | | Total. | | |
| | | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | |
| | | | Rs. | | Rs. | | Rs. | | Rs. | | Rs. | |
| Dharwar Division. | Myrobollams ... ... Khandis. | 27 | 260 | ... | 29 | ... | ... | ... | ... | 27 | 289 | |
| | Grazing fees ... ... ... ... | ... | ... | ... | 22,394 | ... | ... | ... | ... | | 22,394 | |
| | Karanj seed farm... ... ... ... | ... | ... | ... | 481 | ... | ... | ... | ... | ... | 481 | |
| | Bábul-pods do. ... ... ... ... | ... | ... | ... | 155 | ... | ... | ... | ... | ... | 155 | |
| | Stones ... ... ... Cart-loads. | ... | ... | 3,024 | 228 | ... | ... | ... | ... | 3,024 | 228 | |
| | Do. ... ... Donkey-loads. | ... | ... | 619 | 19 | ... | ... | ... | ... | 619 | 19 | |
| | Earth ... ... ... Cart-loads. | ... | ... | 13 | 1 | ... | ... | ... | ... | 13 | 1 | |
| | Tapping fees on toddy trees ... ... | ... | ... | 669 | 83 | ... | ... | ... | ... | 669 | 83 | |
| | Baini-tree branches. Donkey-loads. | ... | ... | 47 | 3 | ... | ... | ... | ... | 47 | 3 | |
| | Grass from Kurans and closed numbers | ... | ... | ... | 1,156 | ... | ... | ... | ... | ... | 1,156 | |
| | Thatching grass ... ... Cart-loads. | ... | ... | 277 | 27 | ... | ... | ... | ... | 277 | 27 | |
| | Do. ... Head-loads. | ... | ... | 703 | 15 | ... | ... | ... | ... | 703 | 15 | |
| | Broom grass ... ... Cart-loads. | ... | ... | 251 | 62 | ... | ... | ... | ... | 251 | 62 | |
| | Toddy tree branches ... Do. | ... | .. | 13 | 13 | ... | ... | ... | ... | 13 | 13 | |
| | Do. Donkey-loads. | ... | ... | 353 | 22 | ... | ... | ... | ... | 353 | 22 | |
| | Do. ... Head-loads. | ... | ... | 156 | 4 | ... | ... | ... | ... | 156 | 4 | |
| | Thorns ... ... ... Cart-loads. | ... | ... | 978 | 95 | ... | ... | ... | ... | 978 | 95 | |
| | Do. ... ... Animal-loads. | ... | ... | 2,422 | 165 | ... | ... | ... | ... | 2,422 | 165 | |
| | Do. ... ... ... Head-loads. | ... | ... | 37 | 1 | ... | ... | ... | ... | 37 | 1 | |
| | Tárwád bark ... ... ... ... | ... | ... | ... | 1,225 | ... | ... | ... | ... | ... | 1,225 | |
| | Grass ... ... ... Head-loads. | ... | ... | 2,016 | 69 | ... | ... | ... | ... | 2,016 | 69 | |
| | Total ... | ... | 260 | ... | 26,247 | ... | ... | ... | ... | ... | 26,507 | |
| Bijápur Division. | Stones .... ... ... Cubic Feet. | ... | ... | 146,722 | 2,192 | ... | ... | ... | ... | 1,46,722 | 2,192 | |
| | Earth ... ... ... Do. | ... | ... | 19,216 | 142 | ... | ... | ... | ... | 19,216 | 142 | |
| | Bandurgi leaves ... ... Cart-loads. | ... | ... | 103 | 32 | ... | ... | ... | ... | 103 | 32 | |
| | Do. ... Bullock-loads. | ... | ... | 39 | 5 | ... | ... | ... | ... | 39 | 5 | |
| | Do. ... ... Head-loads. | ... | ... | 7,645 | 486 | ... | .. | ... | ... | 7,645 | 486 | |
| | Tapping fees on Toddy trees ... ... | ... | ... | ... | 33 | ... | ... | ... | ... | ... | 33 | |
| | Honey farm ... ... ... ... | ... | ... | ... | 212 | ... | ... | ... | ... | ... | 212 | |
| | Shan stones do. ... ... ... | ... | ... | ... | 138 | ... | ... | ... | ... | ... | 138 | |
| | Bábul-pods do. ... ... ... | ... | ... | ... | 452 | ... | ... | ... | ... | ... | 452 | |
| | Gum do. ... ... ... | ... | ... | ... | 18 | ... | ... | ... | ... | ... | 18 | |
| | Grazing fees ... ... ... ... | ... | ... | ... | 13,449 | ... | ... | ... | ... | ... | 13,449 | |
| | Total ... | ... | ... | ... | 17,159 | ... | ... | ... | ... | ... | 17,159 | |
| Kolába Division. | Grass and grazing fees ... ... ... | ... | ... | ... | 4,323 | ... | ... | .. | ... | ... | 4,323 | |
| | Myrobollam farm ... ... ... | ... | ... | .. | 969 | ... | ... | ... | ... | ... | 969 | |
| | Shigekái do. ... ... ... | ... | ... | ... | 270 | ... | ... | ... | ... | ... | 270 | |
| | Shembi-bark do. ... ... ... | ... | ... | ... | 394 | ... | ... | ... | ... | ... | 394 | |
| | Karvi ... ... ... ... ... | ... | ... | ... | 287 | ... | ... | ... | ... | ... | 287 | |
| | Palm tree leaves farm ... ... ... | ... | ... | ... | 120 | ... | ... | ... | ... | ... | 120 | |
| | Dry palm trees ... ... ... ... | ... | ... | 187 | 93 | ... | ... | ... | ... | 187 | 93 | |
| | Jack fruit, &c, farm ... ... ... | ... | ... | ... | 37 | ... | ... | ... | ... | ... | 37 | |
| | Stones .. ... ... ... ... | ... | ... | ... | 20 | ... | ... | ... | ... | ... | 20 | |
| | Tapping fees on Toddy trees ... ... | ... | ... | 364 | 23 | ... | ... | ... | ... | 364 | 23 | |
| | Thorns ... ... ... Head-loads. | ... | ... | 480 | 15 | ... | ... | ... | ... | 480 | 15 | |
| | Total ... | ... | ... | ... | 6,551 | ... | ... | ... | ... | ... | 6,551 | |
| Ratnagiri Division. | Myrobollams ... ... ...Khandis. | ... | ... | .. | ... 219 | ... | ... | 1 | 29 | 1 | 29 | |
| | Grass ... ... ... ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 219 | |
| | Kával (loppings) ... ... Head-loads. | ... | ... | 361 | 4 | ... | ... | .. | ... | 361 | 4 | |
| | Ain bark ... ... ... Do. | ... | ... | 10 | 1 | ... | .. | ... | ... | 10 | 1 | |
| | Total ... | ... | ... | ... | 224 | ... | ... | ... | 29 | ... | 253 | |

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

*Belgaum, 29th September 1894.*

# FORM No. 59.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Account of Timber and other Produce cut or collected by Government Agency and brought to sale Depôts or sold locally during the year 1893-94.*

| Particulars. | No. or Quantity. | Cubic Feet. | TOTAL OF EACH HEAD. No. or Quantity. | TOTAL OF EACH HEAD. Cubic Feet. |
|---|---|---|---|---|
| **TIMBER.** | | | | |
| **BALANCE AT THE COMMENCEMENT OF THE YEAR.** | | | | |
| *Northern Division of Kanara.* | | | | |
| Teak logs | 9,013 | 264,133 | | |
| Do. sleepers | 46 | 69 | | |
| Do. slabs | 8,078 | 2,650 | | |
| Blackwood logs | 1,754 | 34,418 | | |
| Junglewood logs | 1,414 | 45,009 | | |
| Do. sleepers | 56 | 103 | | |
| Do. poles | 7 | 34 | | |
| | | | 20,398 | 346,416 |
| *Central Division of Kanara.* | | | | |
| Teak logs | 7,869 | 98,419 | | |
| Junglewood logs | 1,727 | 38,624 | | |
| Teak poles | 2,464 | 10,412 | | |
| Blackwood logs | 371 | 6,401 | | |
| Do. poles | 50 | 150 | | |
| Jerait pieces | 30 | 54 | | |
| Teak sleepers | 2,326 | 2,530 | | |
| Do. slabs | 8,094 | 6,875 | | |
| Sitting boards | 35 | ..... | | |
| Round teak board | 1 | ..... | | |
| Round teak pieces | 1,883 | 14,815 | | |
| Teak pieces | 2,247 | 2,730 | | |
| | | | 27,097 | 181,010 |
| *Southern Division of Kanara.* | | | | |
| Junglewood | 394 | 7,869 | | |
| Sleepers | 23 | 23 | | |
| Round sleeper pieces | 3 | 5 | | |
| | | | 420 | 7,897 |
| *Belgaum Division.* | | | | |
| Junglewood poles | 134 | 1,165 | | |
| Do. pieces | 20 | 208 | | |
| Blackwood poles | 10 | 126 | | |
| Teak poles | 11 | 21 | | |
| | | | 175 | 1,580 |
| *Dharwar Division.* | | | | |
| Teak rafters | 1,267 | 4,286 | | |
| Junglewood rafters | 29 | 137 | | |
| Jerait rafters | 16 | 12 | | |
| | | | 1,312 | 4,435 |
| *Kolábá Division.* | | | | |
| Teak pieces of sorts | 6,088 | 24,352 | 6,088 | 24,352 |
| Total, Balance | ... | ..... | 55,490 | 565,690 |
| **RECEIVED FROM THE FORESTS IN DEPÔTS.** | | | | |
| Teak logs | 19,853 | 355,746 | | |
| Do. poles | 20,903 | 71,493 | | |
| Do. pieces | 1,683 | 2,461 | | |
| Do. slabs | 36 | 54 | | |
| Do. chip stacks | 23 | ..... | | |
| Do. round pieces | 300 | ..... | | |
| Do. stumps | 109 | 235 | | |
| Do. rafters | 10,959 | 140,464 | | |
| Do. pieces of sorts | 35,007 | 110,555 | | |
| Do. trees | 7,724 | 39,081 | | |
| Blackwood logs | 1,078 | 23,756 | | |
| Do. poles | 134 | 693 | | |
| Do. pieces | 3 | 48 | | |
| Do. rafters | 272 | 803 | | |
| Junglewood logs | 5,051 | 113,967 | | |
| Do. pieces | 1,627 | 2,561 | | |
| Do. sleepers | 2,501 | 4,995 | | |
| Do. rafters | 1,205 | 5,800 | | |
| Do. unpassed rafters | 8 | 16 | | |
| Do. round pieces | 75 | 389 | | |
| Do. slabs | 540 | 1,080 | | |
| Do. poles | 9,706 | 24,136 | | |
| Jerait pieces | 874 | 1,125 | | |
| Do. stacks | 220 | 12,088 | | |
| Demarcation boards | 104 | 104 | | |
| | | | 125,986 | 911,450 |
| **RECEIVED FROM THE FORESTS AND SOLD LOCALLY.** | | | | |
| Teak logs | 753 | 8,576 | | |
| Do. pieces | 180 | 282 | | |
| Do. pieces of sorts | 11,789 | 31,229 | | |
| Do. poles | 2 | 5 | | |
| Do. rafters | 1 | 4 | | |
| Do. jerait pieces | 2 | ..... | | |
| Junglewood logs | 356 | 3,612 | | |
| Do. poles | 97 | 173 | | |
| Do. pieces | 62 | 80 | | |
| Do. rafters | 10 | 22 | | |
| Do. peg | 1 | ..... | | |
| Blackwood logs | 55 | 992 | | |
| Do. poles | 7 | 7 | | |
| Honi planks | 6 | ..... | | |
| | | | 13,321 | 44,982 |
| Carried over | ... | ..... | 194,797 | 1,522,122 |

| Particulars. | No. or Quantity. | Cubic Feet. | TOTAL OF EACH HEAD. No. or Quantity. | TOTAL OF EACH HEAD. Cubic Feet. |
|---|---|---|---|---|
| **REMOVED BY PURCHASERS FROM DEPÔTS.** | | | | |
| Teak logs | 23,275 | 392,667 | | |
| Do. poles | 22,966 | 79,627 | | |
| Do. sleepers | 2,251 | 2,536 | | |
| Do. round pieces | 1,437 | 11,714 | | |
| Do. pieces | 1,083 | 2,461 | | |
| Miscellaneous teak pieces | 1,984 | 2,460 | | |
| Teak slabs | 36 | 87 | | |
| Do. chip stacks | 23 | ..... | | |
| Do. stumps | 100 | 235 | | |
| Do. rafters | 18,226 | 144,750 | | |
| Do. pieces of sorts | 38,568 | 130,184 | | |
| Blackwood logs | 1,348 | 22,618 | | |
| Do. rafters | 272 | 803 | | |
| Do. poles | 194 | 969 | | |
| Do. pieces | 3 | 48 | | |
| Junglewood logs | 5,998 | 126,232 | | |
| Do. poles | 9,780 | 25,194 | | |
| Do. sleepers | 2,293 | 4,598 | | |
| Do. unpassed sleepers | 8 | 16 | | |
| Do. round pieces | 75 | 389 | | |
| Do. slabs | 538 | 1,076 | | |
| Do. pieces | 1,647 | 2,829 | | |
| Do. rafters | 1,234 | 5,737 | | |
| Jerait pieces | 719 | 1,182 | | |
| Do. stacks | 220 | 12,088 | | |
| Sitting boards | 2 | ..... | | |
| | | | 134,880 | 970,500 |
| **SOLD LOCALLY.** | | | | |
| Teak logs | 753 | 8,576 | | |
| Do. poles | 2 | 5 | | |
| Do. pieces | 180 | 282 | | |
| Do. pieces of sorts | 11,789 | 31,229 | | |
| Do. jerait pieces | 2 | ..... | | |
| Do. rafters | 1 | 4 | | |
| Blackwood logs | 55 | 992 | | |
| Do. poles | 7 | 7 | | |
| Junglewood logs | 356 | 3,612 | | |
| Do. poles | 97 | 173 | | |
| Do. rafters | 10 | 22 | | |
| Do. pieces | 62 | 80 | | |
| Do. peg | 1 | ..... | | |
| Honi planks | 6 | ..... | | |
| | | | 13,321 | 44,982 |
| **USED BY THE DEPARTMENT.** | | | | |
| Teak logs | 4 | 98 | | |
| Miscellaneous teak pieces | 100 | 115 | | |
| Junglewood logs | ... | 221 | | |
| | | | 104 | 434 |
| **RESOLD AT THE PURCHASERS' RISK.** | | | | |
| Teak logs | 589 | 7,452 | | |
| Do. poles | 144 | 736 | | |
| Do. jerait pieces | 64 | 126 | | |
| Round teak sleepers | 74 | 422 | | |
| Teak sawn pieces | 2 | 3 | | |
| Do. do. heaps | 20 | ..... | | |
| Do. sleeper pieces | 123 | 106 | | |
| Blackwood logs | 18 | 323 | | |
| Junglewood logs | 119 | 1,921 | | |
| Do. sawn heaps | 3 | ..... | | |
| | | | 1,156 | 11,089 |
| **TRANSFERRED TO OTHER SALE DEPÔT.** | | | | |
| Teak logs | 6 | 16 | | |
| Junglewood logs | 394 | 7,869 | | |
| Sleepers | 23 | 23 | | |
| Round sleeper pieces | 3 | 5 | | |
| | | | 426 | 7,913 |
| **WRITTEN OFF.** | | | | |
| Teak sleepers | 13 | ..... | | |
| | | | 13 | |
| **BALANCE AT THE CLOSE OF THE YEAR.** | | | | |
| *Northern Division of Kanara.* | | | | |
| Teak logs | 8,066 | 240,929 | | |
| Do. sleepers | 46 | 69 | | |
| Do. slabs | 8,078 | 2,617 | | |
| Do. poles | 24 | 24 | | |
| Blackwood logs | 1,655 | 37,373 | | |
| Junglewood logs | 1,388 | 43,770 | | |
| Do. poles | 62 | 130 | | |
| Do. sleepers | 264 | 500 | | |
| Do. slabs | 2 | 4 | | |
| Demarcation boards | 104 | 104 | | |
| | | | 19,689 | 325,520 |
| Carried over | ... | ..... | 19,689 | 325,520 |

FORM No. 59—*continued.*

| Particulars. | No. or Quantity. | Cubic Feet. | Total of each head. No. or Quantity. | Total of each head. Cubic Feet. |
|---|---|---|---|---|
| Brought forward ... | ... | ..... | 194,797 | 1,522,122 |
| **Received by resale at the risk of the purchaser.** | | | | |
| Teak logs ... ... ... ... ... | 589 | 7,452 | | |
| Do. poles ... ... ... ... | 144 | 736 | | |
| Do. Jeraiti pieces ... ... ... | 64 | 126 | | |
| Do. round sleepers ... ... ... | 74 | 422 | | |
| Do. sawn heaps ... ... ... | 20 | ..... | | |
| Do. sleeper pieces ... ... ... | 123 | 106 | | |
| Do. sawn pieces ... ... ... | 2 | 3 | | |
| Blackwood logs ... ... ... | 18 | 323 | | |
| Junglewood logs ... ... ... | 119 | 1,921 | | |
| Do. sawn heaps ... ... | 3 | ..... | | |
| | | | 1,156 | 11,089 |
| **Received by transfer.** | | | | |
| Teak logs ... ... ... ... ... | 6 | 16 | | |
| Junglewood logs ... ... ... | 394 | 7,869 | | |
| Sleepers ... ... ... ... ... | 23 | 23 | | |
| Round sleeper pieces .. ... ... | 3 | 5 | | |
| | | | 426 | 7,913 |
| Total Timber ... | ... | ..... | 196,379 | 1,541,124 |
| **Balance at the commencement of the year.** | | | | |
| *Central Division of Kánara.* | | | | |
| Firewood... ... ... ... ... | ... | 2,510 | ... | 2,510 |
| *Southern Division of Kánara.* | | | | |
| Firewood ... ... ... ... ... | ... | 270 | ... | 270 |
| *Belgaum Division.* | | | | |
| Firewood ... ... ... ... ... | ... | 146,591 | ... | 146,591 |
| *Dharwar Division.* | | | | |
| Firewood ... ... ... ... ... | .. | 32,526 | ... | 32,526 |
| Total Balance ... | ... | ..... | ... | 181,897 |
| **Received from the Forests in Depôts.** | | | | |
| Firewood ... ... ... ... ... | ... | 4,158,121 | ... | 4,158,121 |
| **Received from the Forests and sold locally.** | | | | |
| Firewood ... ... ... ... ... | ... | 3,077 | ... | 3,077 |
| Total, Firewood ... | ... | ..... | ... | 4,343,095 |
| **Received from the Forests in Depôts.** | | | | |
| Bamboos ... ... ... ... ... | 3,422 | ..... | 3,422 | ..... |
| **Balance at the commencement of the year.** | | | | |
| *Central Division of Kanara.* | | | | |
| Sandalwood billets ... ... .. | 2 | ..... | 2 | ..... |
| *Southern Division of Kanara.* | | | | |
| Sandalwood billets ... ... ... | 2 | ..... | 2 | ..... |
| *Dharwar Division.* | | | | |
| Sandalwood billets ... ... ... | 63 | ..... | ... | ..... |
| Do. roots ... ... ... | 60 | ..... | ... | ..... |
| Do. pieces ... ... ... | 26 | ..... | 149 | ..... |
| Total, Balance ... | ... | ..... | 153 | ..... |
| Carried over ... | ... | ..... | 153 | ..... |

| Particulars. | No. or Quantity. | Cubic Feet. | Total of each head. No. or Quantity. | Total of each head. Cubic Feet. |
|---|---|---|---|---|
| TIMBER—*continued.* | | | | |
| Brought forward ... | ... | ..... | 19,689 | 325,520 |
| *Central Division of Kanara.* | | | | |
| Teak logs ... ... ... ... ... | 5,415 | 84,453 | | |
| Do. poles ... ... ... ... | 388 | 2,275 | | |
| Round do. pieces ... ... ... | 749 | 3,106 | | |
| Miscellaneous do. do. ... ... | 163 | 155 | | |
| Teak sleepers ... ... ... ... | 85 | 17 | | |
| Do. slabs ... ... ... ... | 8,094 | 6,875 | | |
| Do. Jeraiti pieces .. ... ... | 201 | 9 | | |
| Sitting boards ... ... ... .. | 33 | ..... | | |
| Round teak board ... ... .. | 1 | ..... | | |
| Junglewood logs ... ... ... ... | 1,200 | 35,246 | | |
| Blackwood logs ... ... .. ... | 200 | 4,584 | | |
| | | | 16,529 | 136,720 |
| *Southern Division of Kanara.* | | | | |
| Teak logs ... .. ... ... ... | 1 | 4 | 1 | 4 |
| *Belgaum Division.* | | | | |
| Teakwood logs ... .. ... ... | 4 | 147 | | |
| Junglewood poles ... ... ... | 5 | 11 | | |
| | | | 9 | 158 |
| *Kolábá Division.* | | | | |
| Teak pieces of sorts ... .. ... | 2,527 | 4,723 | | |
| Teak trees ... ... ... ... | 7,724 | 39,081 | | |
| | | | 10,251 | 43,804 |
| Total, Balance ... | ... | ..... | 46,479 | 506,206 |
| Total, Timber .. | ... | ..... | 196,379 | 1,541,124 |
| FIREWOOD. | | | | |
| **Removed by purchasers from Depôts.** | | | | |
| Firewood ... ... ... ... ... | ... | 3,832,597 | ... | 3,832,597 |
| **Sold locally.** | | | | |
| Firewood ... ... ... ... ... | ... | 3,077 | ... | 3,077 |
| **Written off being burnt.** | | | | |
| Firewood ... ... ... ... ... | ... | 846 | .. | 846 |
| **Balance at the close of the year.** | | | | |
| *Central Division of Kánara.* | | | | |
| Firewood ... ... ... ... ... | ... | 7,562 | ... | 7,562 |
| *Southern Division of Kánara.* | | | | |
| Firewood ... ... ... ... ... | ... | 2,718 | ... | 2,718 |
| *Belgaum Division.* | | | | |
| Firewood ... ... ... ... ... | ... | 467,336 | ... | 467,336 |
| *Dhárwár Division.* | | | | |
| Firewood .. .. ... ... | ... | 25,848 | ... | 25,848 |
| *Kolábá Division.* | | | | |
| Firewood .. ... ... ... ... | ... | 611 | ... | 611 |
| *Ratnágiri Division.* | | | | |
| Firewood ... ... ... .. .. | ... | 2,500 | ... | 2,500 |
| Total, Balance ... | ... | ..... | ... | 506,575 |
| Total, Firewood ... | ... | ..... | ... | 4,343,095 |
| BAMBOOS. | | | | |
| **Removed by purchasers from Depôts.** | | | | |
| Bamboos ... ... .. ... ... | 3,422 | ..... | 3,422 | ..... |
| SANDALWOOD. | | | | |
| **Removed by purchasers from Depôts.** | | | | |
| Sandalwood billets ... ... ... | 6,414 | 89 5 18 | | |
| Do. poles ... ... ... | 1,057 | ..... | | |
| Do. whitewood billets... ... | 976 | 20 2 26 | | |
| Do. bark... ... ... ... | ... | 1 1 14 | | |
| Do. saw dust ... ... ... | ... | 0 0 14 | | |
| Do. carts ... ... ... | 10 | ..... | | |
| Do. chips carts... ... ... | 28 | ..... | | |
| Do. roots... ... ... ... | 364 | 2 2 7 | | |
| Do. pieces ... ... ... | 918 | 0 15 21 | | |
| Do. chips stacks ... ... | 5 | ..... | | |
| Do. saw dust bags ... ... | 2 | 0 3 0 | | |
| Do. do. and filings... ... | ... | 3 3 1 | | |
| Do. branch stacks ... ... | 4 | ..... | | |
| Refuse pieces ... ... ... ... | ½ | ..... | | |
| | | | 9,778½ | 116 19 17 |
| Carried over ... | ... | ..... | 9,778½ | 116 19 17 |

## FORM No. 59—*continued.*

| Particulars. | No. or Quantity. | Cubic Feet. | Total of each Head. No. or Quantity. | Total of each Head. Cubic Feet. |
|---|---|---|---|---|
| **SANDALWOOD—*continued.*** | | | | |
| Brought over .. | .. | .... | 153 | .... |
| **Received from the Forests in Depôts.** | | | | |
| Sandalwood trees .. .. .. | 1,037 | .... | | |
| Do. poles .. .. .. | 1,057 | .... | | |
| Do. pieces .. .. .. | 249 | .... | | |
| Do. roots .. .. .. | 60 | .... | | |
| Do. billets .. .. .. | 2,687 | 51-7-23½ | | |
| Do. branch stacks .. .. | 4 | .... | | |
| Do. saw dust and filings .. | .. | 3-3-1 | | |
| Do. chips .. Carts.. | 28 | .... | | |
| Do. whitewood billets .. | 1,086 | 21-3-9 | | |
| | | | 6,208 | 76-4-5½ |
| **Received from the Forests and sold locally.** | | | | |
| Sandalwood trees .. .. .. | 7,898 | .... | | |
| Do. pieces .. .. .. | 8 | 0-0-19½ | | |
| Do. branches .. .. .. | 1 | .... | | |
| Do. roots .. .. .. | 2 | .... | | |
| | | | 7,909 | 0-0-19½ |
| **Received by Conversion in Depôts.** | | | | |
| Sandalwood billets .. .. .. | 3,726 | 37-17-16 | | |
| Do. pieces .. .. .. | 695 | 0-15-21 | | |
| Do. roots .. .. .. | 364 | 2-2-7 | | |
| Do. bark .. .. .. | .. | 1-1-14 | | |
| Do. saw dust bags .. .. | 2 | 0-3-0 | | |
| Do. carts .. .. .. | 10 | .... | | |
| Do. chips stacks .. .. | 5 | .... | | |
| Do. saw dust .. .. .. | .. | 0-0-14 | | |
| Refuse pieces .. .. .. .. | ½ | .... | | |
| | | | 4,802½ | 42-1-16 |
| Total, Sandalwood .. | .. | .... | 19,072½ | 118-6-13 |
| **Balance at the Commencement of the Year.** | | | | |
| *Central Division of Kanara.* | | | | |
| Grass bundles .. .. .. .. | 24,725 | .... | | |
| Shigekai .. .. Khandis.. | .. | 0-2-2 | | |
| Myrobollams .. .. Khandis.. | .. | 1-19-0 | | |
| | | | 24,725 | 1-21-2 |
| *Southern Division of Kanara.* | | | | |
| Myrobollams .. .. Khandis.. | .. | 4-14-8 | | |
| Shigekai .. .. .. Khandis.. | .. | 17-7-20 | | |
| | | | .. | 21-22 |
| Total, Balance .. | .. | .... | 24,725 | 23-18-2 |
| **Received from the Forests in Depôts.** | | | | |
| Myrobollams .. ..Khandis .. | *23,509 | 8,368-5-22 | | |
| Teak seed chittees .. .. .. | 285 | .... | | |
| Asoka bark .. .. .. .. | .. | 0-1-22 | | |
| Grass bundles .. .. .. .. | 13,530 | .... | | |
| Do. .. .. Head-loads. | 1 | .... | | |
| Thorns .. .. Do. .. | 5 | .... | | |
| Ropes .. .. .. .. .. | 2 | .... | | |
| Bamboo seed .. .. .. .. | .. | 0-6-10½ | | |
| Shigekai .. .. .. Khandis .. | .. | 64-17-11½ | | |
| | | | 37,332 | 8,433-6-10 |
| **Received by Transfer from Depôts.** | | | | |
| Shigekai .. .. .. Khandis.. | .. | 0-2-2 | | |
| | | | .. | 0-2-2 |
| Total, Minor Produce .. | .... | .... | 62,057 | 8,457-1-14 |

| Particulars. | No. or Quantity. | Cubic Feet. | Total of each Head. No. or Quantity. | Total of each Head. Cubic Feet. |
|---|---|---|---|---|
| Brought over .. | .. | .... | 9,778½ | 116-19-17 |
| **Sold locally.** | | | | |
| Sandalwood trees .. .. .. | 7,898 | .... | | |
| Do. pieces .. .. .. | 8 | 0-0-19½ | | |
| Do. roots .. .. .. | 2 | .... | | |
| Do. branches .. .. .. | 1 | .... | | |
| | | | 7,909 | 0-0-19½ |
| *Converted in Depôt.* | | | | |
| Sandalwood trees .. .. .. | 962 | .... | | |
| Do. billets .. .. .. | 63 | .... | | |
| Do. roots .. .. .. | 120 | .... | | |
| Do. pieces .. .. .. | 52 | .... | | |
| | | | 1,197 | .... |
| **Written off.** | | | | |
| Sandalwood .. .. .. .. | .. | 0-0-6 | .. | 0-0-6 |
| **Balance at the close of the year.** | | | | |
| *Central Division of Kanara.* | | | | |
| Sandalwood billets .. .. .. | 2 | 0-0-15½ | | |
| Do. billets .. .. .. | 1 | .... | | |
| Do. trees.. .. .. .. | 75 | .... | | |
| | | | 78 | 0-0-15½ |
| *Southern Division of Kanara.* | | | | |
| White wood .. .. .. .. | 110 | 1-5-11 | | |
| | | | 110 | 1-5-11 |
| Total, Balance .. | .. | .... | 188 | 1-5-26½ |
| Total, Sandalwood .. | .. | .... | 19,072½ | 118-6-13 |
| **MINOR PRODUCE.** | | | | |
| **Removed by Purchasers from Depôts.** | | | | |
| Teak seed chittees .. .. .. | 196½ | .... | | |
| Bamboo seed .. .. .. .. | .. | 0-6-10½ | | |
| Asoka bark .. .. .. .. | .. | 0-1-22 | | |
| Grass bundles .. .. .. .. | 25,425 | .... | | |
| Do. .. .. Head-load. | 1 | .... | | |
| Ropes .. .. .. .. .. | 2 | .... | | |
| Thorns .. .. .. Head-loads. | 5 | .... | | |
| Myrobollams .. .. Khandis .. | 23,422 | 8,320-20-24 | | |
| Shigekai .. .. .. Khandis .. | .. | 67-16-9 | | |
| | | | 49,051½ | 8,388-20-9½ |
| **Transferred to other Sale Depôts.** | | | | |
| Shigekai .. .. .. .. .. | .. | 0-2-2 | .. | 0-2-2 |
| *Burnt.* | | | | |
| Hardas .. .. .. Khandis .. | .. | 1-0-0 | .. | 1-0-0 |
| **Balance at the close of the Year.** | | | | |
| *Northern Division of Kanara.* | | | | |
| Teak seed chittees .. .. .. | 88½ | .... | | |
| Hardas baskets .. .. .. .. | 87 | .... | | |
| | | | 175½ | |
| *Central Division of Kanara.* | | | | |
| Grass bundles .. .. .. .. | 12,830 | .... | | |
| Hardas .. .. .. Khandis .. | .. | 46-21-0 | | |
| Shigekai .. .. .. Khandis .. | .. | 0-2-14 | | |
| | | | 12,830 | 46-23-14 |
| *Southern Division of Kanara.* | | | | |
| Hardas .. .. .. Khandis .. | .. | 5-22-6 | | |
| Shigekai .. .. .. Khandis .. | .. | 14-8-10½ | | |
| | | | .. | 20-5-16½ |
| Total, Balance .. | .. | .... | 13,005½ | 67-4-2½ |
| Total, Minor Produce .. | .. | .... | 62,057 | 8,457-1-14 |

*Baskets.

*Belgaum, 29th September 1894.*

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 60.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1893-94.*

| Description of Timber and other Produce. | On hand at commencement of the year. | | | On hand at close of the year. | | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | Number. | Cubic feet. | Value. | Number. | Cubic feet. | Value. | In favour of the year. | Against the year. | |
| | | | Rs. a. p. | | | Rs. a. p. | Rs. | Rs. | |
| **TIMBER.** | | | | | | | | | |
| *Northern Division of Kanara.* | | | | | | | | | |
| Teakwood logs | 9,043 | 2,64,133 | 3,15,947 0 0 | 8,066 | 2,40,929 | 3,26,724 0 0 | 10,777 | ... | |
| Blackwood logs | 1,754 | 34,418 | 25,535 0 0 | 1,655 | 37,373 | 23,918 0 0 | ... | 1,617 | |
| Junglewood logs | 1,414 | 45,009 | 36,010 0 0 | 1,388 | 43,770 | 31,594 0 0 | ... | 4,416 | |
| Teak sleepers | 46 | 69 | 10 0 0 | 46 | 69 | 10 0 0 | ... | ... | |
| Do. slabs | 8,078 | 2,650 | 100 0 0 | 8,078 | 2,617 | 100 0 0 | ... | ... | |
| Junglewood sleepers | 56 | 103 | 40 0 0 | 264 | 500 | 180 0 0 | 140 | ... | |
| Do. poles | 7 | 34 | 5 0 0 | 62 | 130 | 15 0 0 | 10 | ... | |
| Teak poles | ... | ... | ..... | 24 | 24 | 24 0 0 | 24 | ... | |
| Junglewood slabs | ... | ... | ..... | 2 | 4 | 1 0 0 | 1 | ... | |
| Demarcation boards | ... | ... | ..... | 104 | 104 | 52 0 0 | 52 | ... | |
| Total | ... | ... | 3,77,647 0 0 | ... | ... | 3,82,618 0 0 | 11,004 | 6,033 | |
| *Central Division of Kanara.* | | | | | | | | | |
| Logs | 9,967 | 1,43,444 | 1,37,707 0 0 | 6,815 | 1,24,283 | 1,25,000 0 0 | ... | 12,707 | |
| Teak round pieces | 1,883 | 14,815 | 2,888 0 0 | 749 | 3,106 | 600 0 0 | ... | 2,288 | |
| Do. sleepers | 2,326 | 2,530 | 1,623 0 0 | 85 | 17 | 30 0 0 | ... | 1,593 | |
| Do. slabs | 8,094 | 6,875 | 564 0 0 | 8,094 | 6,875 | 300 0 0 | ... | 264 | |
| Do. poles | 2,464 | 10,412 | 3,316 0 0 | 388 | 2,275 | 550 0 0 | ... | 2,766 | |
| Sitting boards | 35 | ... | 5 0 0 | 33 | ... | 3 0 0 | ... | 2 | |
| Round teak board | 1 | ... | 0 5 0 | 1 | ... | 0 5 0 | ... | ... | |
| Blackwood poles | 50 | 150 | 25 0 0 | ... | ... | ..... | ... | 25 | |
| Jeraitiwood pieces | 30 | 54 | 3 0 0 | 201 | 9 | 2 0 0 | ... | 1 | |
| Teak ends and pieces | 2,247 | 2,730 | 55 0 0 | 163 | 155 | 40 0 0 | ... | 15 | |
| Total | ... | ... | 1,46,186 5 0 | ... | ... | 1,26,525 5 0 | ... | 19,661 | |
| *Southern Division of Kanara.* | | | | | | | | | |
| Junglewood logs | 394 | 7,869 | 7,869 0 0 | ... | ... | ..... | ... | 7,869 | |
| Sleepers | 23 | 23 | 46 0 0 | ... | ... | ..... | ... | 46 | |
| Round sleeper pieces | 3 | 5 | 2 0 0 | ... | ... | ..... | ... | 2 | |
| Teakwood | ... | ... | ..... | 1 | 4 | 3 0 0 | 3 | ... | |
| Total | ... | ... | 7,917 0 0 | ... | ... | 3 0 0 | 3 | 7,917 | |
| *Belgaum Division.* | | | | | | | | | |
| Teak logs | ... | ... | ..... | 4 | 147 | 100 0 0 | 100 | ... | |
| Do. poles | 11 | 21 | 8 0 0 | ... | ... | ..... | ... | 8 | |
| Blackwood poles | 10 | 126 | 20 0 0 | ... | ... | ..... | ... | 20 | |
| Junglewood poles | 134 | 1,165 | 267 0 0 | 5 | 11 | 1 0 0 | ... | 266 | |
| Do. pieces | 20 | 268 | 50 0 0 | ... | ... | ..... | ... | 50 | |
| Total | ... | ... | 345 0 0 | ... | ... | 101 0 0 | 100 | 344 | |
| *Dharwar Division.* | | | | | | | | | |
| Teak rafters | 1,267 | 4,286 | 1,200 0 0 | ... | ... | ..... | ... | 1,200 | |
| Junglewood rafters | 29 | 137 | 24 0 0 | ... | ... | ..... | ... | 24 | |
| Jeráiti pieces | 16 | 12 | 3 0 0 | ... | ... | ..... | ... | 3 | |
| Total | ... | ... | 1,227 0 0 | ... | ... | ..... | ... | 1,227 | |
| *Kolábá Division.* | | | | | | | | | |
| Teak pieces of sorts | 6,088 | 24,352 | 2,100 0 0 | 2,527 | 4,723 | 1,299 0 0 | ... | 801 | |
| Teak trees | ... | ... | ..... | 7,724 | 39,031 | 2,896 0 0 | 2,896 | ... | |
| Total | ... | ... | 2,100 0 0 | ... | ... | 4,195 0 0 | 2,896 | 801 | |
| Total, Timber | ... | ... | 5,35,422 5 0 | ... | ... | 5,13,442 5 0 | 14,003 | 35,983 | |
| **FIREWOOD.** | | | | | | | | | |
| *Central Division of Kanara.* | | | | | | | | | |
| Firewood | .... | 2,510 | 71 0 0 | ... | 7,562 | 300 0 0 | 229 | ... | |
| *Southern Division of Kanara.* | | | | | | | | | |
| Firewood Stacks | 15 | 270 | 12 0 0 | ... | 2,718 | 151 0 0 | 139 | ... | |

FORM No. 60—*continued.*

| Description of Timber and other Produce. | On hand at commencement of the year. | | | On hand at close of the year. | | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | Number. | Cubic feet. | Value. | Number. | Cubic feet. | Value. | In favour of the year. | Against the year. | |
| | | | Rs. a. p. | | | Rs. a. p. | Rs. | Rs. | |
| FIREWOOD—*continued.* | | | | | | | | | |
| *Belgaum Division.* | | | | | | | | | |
| Firewood stacks ... ... ... ... | 1,341 | 44,259 | 1,880 0 0 | ... | 4,67,336 | 46,043 0 0 | 44,163 | ... | |
| Running Firewood ... ... ... | ... | 1,02,332 | 10,315 0 0 | ... | ... | ..... | ... | 10,315 | |
| Total ... | ... | ... | 12,195 0 0 | ... | ... | 46,043 0 0 | 44,163 | 10,315 | |
| *Dharwar Division.* | | | | | | | | | |
| Firewood stacks ... ... ... ... | 1,807 | 32,526 | 1,807 0 0 | ... | 25,848 | 1,580 0 0 | ... | 227 | |
| *Kolábá Division.* | | | | | | | | | |
| Firewood ... ... ... ... ... | ... | ... | ..... | ... | 611 | 47 0 0 | 47 | ... | |
| *Ratnagiri Division.* | | | | | | | | | |
| Firewood ... ... ... ... ... | ... | ... | ..... | ... | 2,500 | 25 0 0 | 25 | ... | |
| Total, Firewood ... | ... | ... | 14,085 0 0 | ... | ... | 48,146 0 0 | 44,603 | 10,542 | |
| SANDALWOOD. | | | | | | | | | |
| *Central Division of Kánara.* | | | | | | | | | |
| Sandalwood billets ... ... ... | 2 | 0 0 15½ | 2 0 0 | 3 | 0 0 15½ | 3 0 0 | 1 | ... | |
| Do. trees ... ... ... ... | ... | ... | ..... | 75 | ... | 20 0 0 | 20 | ... | |
| Total ... | ... | ... | 2 0 0 | ... | ... | 23 0 0 | 21 | ... | |
| *Southern Division of Kanara.* | | | | | | | | | |
| Sandalwood ... ... ... ... | 2 | 0 1 0 | 7 0 0 | ... | ... | ..... | ... | 7 | |
| Whitewood ... ... ... ... | ... | ... | ..... | 110 | 1 5 11 | 12 0 0 | 12 | ... | |
| Total ... | ... | ... | 7 0 0 | ... | ... | 12 0 0 | 12 | 7 | |
| *Dharwar Division.* | | | | | | | | | |
| Sandalwood roots... ... ... ... | 60 | ... | 20 0 0 | ... | ... | ..... | ... | 20 | |
| Do. billets ... ... ... | 63 | ... | 80 0 0 | ... | ... | ..... | ... | 80 | |
| Do. pieces ... ... ... | 26 | ... | 5 0 0 | ... | ... | ..... | ... | 5 | |
| Total ... | ... | ... | 105 0 0 | ... | ... | ..... | ... | 105 | |
| Total, Sandalwood ... | ... | ... | 114 0 0 | ... | ... | 35 0 0 | 33 | 112 | |
| MINOR PRODUCE. | | | | | | | | | |
| *Northern Division of Kanara.* | | | | | | | | | |
| Teak seed chittees ... ... ... | ... | ... | ..... | 88½ | ... | 2 0 0 | 2 | ... | |
| Harda baskets ... ... ... ... | ... | ... | ..... | 87 | ... | 70 0 0 | 70 | ... | |
| Total ... | ... | ... | ..... | ... | ... | 72 0 0 | 72 | ... | |
| *Central Division of Kanara.* | | | | | | | | | |
| Grass ... ... ... ... Bundles. | 24,725 | ... | 76 0 0 | 12,830 | ... | 30 0 0 | ... | 46 | |
| Shigekái ... ... ... Khandis. | ... | 0 2 2 | 1 0 0 | ... | 2 14 0 | 1 0 0 | ... | ... | |
| Hardas ... ... ... Do. | ... | 1 19 0 | 40 0 0 | ... | 46 21 0 | 550 0 0 | 510 | ... | |
| Total ... | ... | ... | 117 0 0 | ... | ... | 581 0 0 | 510 | 46 | |
| *Southern Division of Kanara.* | | | | | | | | | |
| Myrobollams... ... ... Khandis. | ... | 4 14 8 | 86 0 0 | ... | 5 22 6 | 91 0 0 | 5 | ... | |
| Shigekái ... ... ... Do. | ... | 17 7 20 | 357 0 0 | ... | 14 8 10½ | 294 0 0 | ... | 63 | |
| Total ... | ... | ... | 443 0 0 | ... | ... | 385 0 0 | 5 | 63 | |
| Total, Minor Produce .. | ... | ... | 560 0 0 | ... | ... | 1,038 0 0 | 587 | 109 | |
| Grand Total ... | ... | ... | 5,50,181 5 0 | ... | ... | 5,62,661 5 0 | 59,226 | 46,746 | |

Net difference in favour of the year, Rs. 12,480-0-0.

*Belgaum, 29th September 1894.*

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 60 A.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Abstract showing the Value of Live and Dead Stock for the year 1893-94.*

| Description of Live and Dead Stock. | On hand at commencement of the year. | | On hand at close of the year. | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|
| | Number. | Value. | Number. | Value. | In favour of the year. | Against the year. | |
| *Direction.* | | Rs. | | Rs. | Rs. | Rs. | |
| Office tents ... ... ... | 2 | 902 | 2 | 902 | ... | ... | |
| Tools, plant and office furniture ... | ... | 423 | ... | 521 | 98 | ... | |
| Total ... | .... | 1,325 | ... | 1,423 | 98 | ... | |
| *Northern Division of Kanara.* | | | | | | | |
| Forest bungalow at Haliyál ... | 1 | 2,700 | 1 | 2,700 | ... | ... | |
| Range forest office at Haliyál ... | 1 | 900 | 1 | 900 | ... | ... | |
| Divisional forest office at Haliyál ... | 1 | 350 | 1 | 350 | .... | ... | |
| Forest nákás ... ... | 11 | 3,324 | 11 | 3,324 | ... | ... | |
| Forest bungalow at Kadra ... | 1 | 8,100 | 1 | 8,100 | ... | ... | |
| Kodibág Depôt House ... | 1 | 4,960 | 1 | 4,960 | ... | ... | |
| Hifl tent ... ... ... | 1 | 350 | 1 | 350 | ... | ... | |
| Tools, plant and office funiture ... | ... | 3,092 | ... | 3,363 | 271 | ... | |
| Total ... | ... | 23,776 | ... | 24,047 | 271 | ... | |
| *Central Division of Kanara.* | | | | | | | |
| Forest bungalows at Yellápur ... | 2 | 3,050 | 2 | 3,050 | ... | ... | |
| Workshop at Yellápur ... | 1 | 114 | 1 | 114 | ... | ... | |
| Rest-house at Kolikeri ... | 1 | 908 | 1 | 908 | ... | ... | |
| Náka houses ... ... | 17* | 5,001* | 17 | 5,001 | ... | ... | *The difference is owing to two of the nákás having been transferred to the S. D., Kánara. |
| Do. do. ... ... | 3† | 1,100 | 3 | 1,100 | .... | ... | †These were transferred from the S. D., Kánara. |
| Rest-house at Bilki ... ... | 1† | 300 | 1 | 300 | ... | ... | |
| Old Range office at Yellápur ... | 1 | 250 | 1 | 250 | ... | ... | |
| Rest-house at Ramanguli ... | 1 | 150 | 1 | 150 | ... | ... | |
| Range forest office at Ankola ... | 1 | 300 | 1 | 300 | ... | ... | |
| Tent ... ... ... | 1 | 350 | 1 | 350 | ... | ... | |
| Tools, plant and office furniture ... | ... | 4,442 | ... | 4,799 | 357 | ... | |
| Buffaloes ... ... ... | 52 | 1,680 | ... | ... | ... | 1,680 | The buffaloes were sold. |
| Carts ... ... ... | 40 | 1,400 | 35 | 1,225 | ... | 175 | 5 of the carts were sold. |
| Bullocks ... ... ... | ... | ... | 2 | 53 | 53 | ... | |
| Total ... | ... | 19,045 | ... | 17,600 | 410 | 1,855 | |
| *Southern Division of Kanara.* | | | | | | | |
| Divisional forest office at Sirsi ... | 1 | 1,717 | 1 | 1,717 | ... | ... | |
| Depôt-house at Sirsi ... ... | 1 | 1,219 | 1 | 1,219 | ... | ... | |
| Forest nákás ... ... | 18* | 5,002* | 18 | 5,002 | ... | ... | *The difference is owing to three of the nákás having been transferred to the C. D., Kánara. |
| Do. ... ... | 2† | 600 | 2 | 600 | ... | ... | †These were transferred from the C. D., Kánara. |
| Range forest office at Honávar ... | ... | .... | 1 | 750 | 750 | ... | Newly purchased. |
| Office tent ... ... ... | 1 | 350 | 1 | 350 | ... | ... | |
| Tools, plant and office furniture ... | ... | 3,229 | ... | 3,619 | 390 | ... | |
| Total ... | ... | 12,117 | ... | 13,257 | 1,140 | ... | |

FORM No. 60 A—*continued.*

| Description of Live and Dead Stock. | On hand at commencement of the year. | | On hand at close of the year. | | Difference in Value. | | Remarks. |
|---|---|---|---|---|---|---|---|
| | Number. | Value. | Number. | Value. | In favour of the year. | Against the year. | |
| *Belgaum Division.* | | Rs. | | Rs. | Rs. | Rs. | |
| Tent (old) ... ... | 1 | 300 | ... | ... | ... | 300 | The old tent was sold. |
| „ (new) ... ... | ... | ... | 1 | 350 | 350 | ... | |
| Rest-house ... ... | 1 | 2,500 | 1 | 2,500 | ... | ... | |
| Nákás ... ... ... | 18 | 7,480 | 17 | 7,230 | ... | 250 | One náká-house was dismantled. |
| Tools, plant and office furniture ... | ... | 4,208 | ... | 4,307 | 99 | ... | |
| Total ... | ... | 14,488 | ... | 14,387 | 449 | 550 | |
| *Dharwar Division.* | | | | | | | |
| Rest-house ... ... | 1 | 800 | 1 | 800 | ... | ... | |
| Watch-houses ... ... | 9 | 2,700 | 9 | 2,700 | ... | ... | |
| Depôt House at Hubli ... | 1 | 999 | 1 | 999 | ... | ... | |
| Tent ... ... ... | 1 | 350 | 1 | 350 | ... | ... | |
| Tools, plant and office furniture ... | ... | 3,339 | ... | 3,354 | 15 | ... | |
| Total ... | ... | 8,188 | ... | 8,203 | 15 | ... | |
| *Bijápur Division.* | | | | | | | |
| Tent ... ... ... | 1 | 150 | 1 | 150 | ... | ... | |
| Tools, plant and office furniture ... | ... | 859 | ... | 926 | 67 | ... | |
| Total ... | ... | 1,009 | ... | 1,076 | 67 | ... | |
| *Kolábá Division.* | | | | | | | |
| Hill tent, old ... ... | 1 | 250 | 1 | 250 | ... | ... | |
| Swiss cottage tent ... ... | 1 | 380 | 1 | 380 | ... | ... | |
| Forest boat with fittings ... | 1 | 300 | 1 | 300 | ... | ... | |
| Tools, plant and office furniture ... | ... | 2,954 | ... | 3,122 | 168 | ... | |
| Total ... | ... | 3,884 | ... | 4,052 | 168 | ... | |
| *Ratnagiri Division.* | | | | | | | |
| Hill tent ... ... ... | 1 | 200 | 1 | 200 | ... | ... | |
| Tools, plant and office furniture ... | ... | *423 | ... | 736 | 313 | ... | *The balance on hand at close of the last year was Rs. 468. Rs. 45 being the value of articles of stationery, &c., had been wrongly included by the Divisional Officer in the above sum. The mistake has now been rectified by deducting their cost from Rs. 468. |
| Total ... | ... | *623 | ... | 936 | 313 | ... | |
| *Working Plans Division.* | | | | | | | |
| Tents ... ... ... | 2 | 500 | 3 | 699 | 199 | ... | |
| Tools, plant and office furniture ... | ... | 2,940 | ... | 3,091 | 151 | ... | |
| Total ... | ... | 3,440 | ... | 3,790 | 350 | ... | |
| Grand Total ... | ... | *87,895 | ... | 88,771 | 3,281 | 2,405 | |

*Belgaum, 29th September 1894.*

J. L. L MACGREGOR,
Conservator of Forests, Southern Circle.

# FORM No. 61.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Summary of Revenue and Expenditure of the different Divisions for the Forest year 1893-94 (1st July 1893 to 30th June 1894).*

| Budget Heads. | Direction. | North Kánara Division. | South Kánara Division. | Central Kánara Division. | Dhárwár Division. | Kolába Division. | Ratnágiri Division. | Belgaum Division. | Bijápur Division. | Total for the Forest year 1893-94. |
|---|---|---|---|---|---|---|---|---|---|---|
| REVENUE. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | | | | | |
| *a.* Timber ... ... ... ... ... | ..... | 3,49,914 9 3 | 7,867 0 0 | 2,10,105 8 2 | 29,501 14 6 | 39,050 15 9 | 415 4 0 | 33,458 3 8 | ..... | 6,70,313 7 4 |
| *b.* Firewood and charcoal ... ... ... | ..... | 47,922 0 3 | 659 0 0 | 566 0 0 | 13,142 0 0 | 873 7 0 | 18 0 0 | 2,45,709 6 6 | ..... | 2,78,889 13 9 |
| *c.* Bamboos ... ... ... ... ... | ..... | 0 12 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 0 12 0 |
| *d.* Sandalwood ... ... ... ... | ..... | ..... | 7,224 14 2 | 4,002 0 7 | 9,605 8 7 | ..... | ..... | 837 13 3 | 22 0 0 | 21,692 4 7 |
| *e.* Grass and other minor produce ... | ..... | 19,142 0 9 | 35,526 10 5 | 3,356 15 5 | 259 11 0 | ..... | ..... | 77,232 15 11 | ..... | 1,35,518 5 6 |
| Total I ... | ..... | 4,16,979 6 3 | 51,277 8 7 | 2,18,030 8 2 | 52,509 2 1 | 39,924 6 9 | 435 4 0 | 3,27,238 7 4 | 22 0 0 | 11,06,414 11 2 |
| *II.—Timber and other Produce removed from the Forest by Consumers or Purchasers—* | | | | | | | | | | |
| *a.* Timber ... ... ... ... ... | ..... | 20,546 6 11 | 10,845 14 0 | 7,354 13 0 | 1,309 10 5 | 76,156 4 7 | 8,047 15 2 | 10,704 7 0 | 819 10 0 | 1,35,785 1 1 |
| *b.* Firewood and charcoal ... ... ... | ..... | 26,429 6 7 | 8,464 9 6 | 2,748 9 9 | 826 3 10 | 19,598 7 7 | 1,106 6 3 | 8,604 11 6 | 7,572 7 0 | 75,350 14 0 |
| *c.* Bamboos ... ... ... ... ... | ..... | 33,048 12 11 | 1,025 1 0 | 11,280 2 3 | 5,856 9 8 | ..... | ..... | 6,796 11 0 | 2 8 0 | 58,009 12 10 |
| *d.* Grazing and Fodder Grass ... ... | ..... | 7,665 4 9 | 8,833 2 9 | 7,171 5 9 | 28,253 8 3 | 3,472 3 0 | 239 12 6 | 32,752 7 1 | 13,373 15 3 | 1,01,761 11 4 |
| *e.* Other minor produce ... ... ... | ..... | 1,909 3 3 | 6,303 8 2 | 5,401 8 0 | 2,624 11 1 | 2,277 6 9 | 6 0 3 | 10,076 2 4 | 3,560 1 6 | 32,158 9 4 |
| Total II ... | ..... | 89,599 2 5 | 35,472 3 5 | 33,956 6 9 | 38,870 11 3 | 1,01,504 5 11 | 9,400 2 2 | 68,934 6 11 | 25,328 9 9 | 4,03,066 0 7 |
| *III—Drift and Waif Wood and Confiscated Forest Produce* ... ... ... ... ... | ..... | 91 3 6 | 598 12 4 | 2,034 3 9 | 50 10 3 | 1,029 14 4 | 23 10 0 | 445 6 9 | 24 12 0 | 4,298 8 11 |
| Total III ... | ..... | 91 3 6 | 598 12 4 | 2,034 3 9 | 50 10 3 | 1,029 14 4 | 23 10 0 | 445 6 9 | 24 12 0 | 4,298 8 11 |
| *IV.—Revenue from Forests not managed by Government—* | | | | | | | | | | |
| *a.* Duty on foreign timber and other forest produce... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Revenue from shared and private forests | ..... | ..... | ..... | ..... | ..... | 4 8 0 | 20 12 2 | ..... | ..... | 25 4 2 |
| Total IV ... | ..... | ..... | ..... | ..... | ..... | 4 8 0 | 20 12 2 | ..... | ..... | 25 4 2 |
| *V.—Miscellaneous—* | | | | | | | | | | |
| *a.* Fines and Forfeitures ... ... ... | ..... | 5 0 0 | ..... | 0 7 4 | 100 0 0 | 1,935 7 0 | ..... | ..... | 12 0 6 | 2,052 14 10 |
| *b.* Refunds ... ... ... ... ... | 70 2 10 | 151 1 1 | 5 6 11 | 157 4 10 | 1 6 8 | 283 6 1 | 7 5 8 | 18 3 3 | 38 15 5 | 733 4 9 |
| *c.* Other sources ... ... ... ... | ..... | 1,446 4 0 | 463 5 11 | 546 1 3 | 369 1 2 | 1,242 7 1 | 196 10 2 | 10,400 1 9 | 61 15 2 | 14,725 14 6 |
| Total V ... | 70 2 10 | 1,602 5 1 | 468 12 10 | 703 13 5 | 470 7 10 | 3,461 4 2 | 203 15 10 | 10,418 5 0 | 112 15 1 | 17,512 2 1 |
| Grand Total Revenue ... | 70 2 10 | 5,08,272 1 3 | 87,817 5 2 | 2,54,725 0 1 | 91,900 15 5 | 1,45,924 7 2 | 10,081 12 2 | 4,07,036 10 0 | 25,488 4 10 | 15,31,316 10 11 |

## FORM No. 61—*continued.*

| Budget Heads. | Direction. | North Kánara Division. | South Kánara Division. | Central Kánara Division. | Dhárwár Division. | Kolába Division. | Ratnágiri Division. | Belgaum Division. | Bijápur Division. | Total for the Forest year 1893-94. |
|---|---|---|---|---|---|---|---|---|---|---|
| EXPENDITURE. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| A.—Conservancy and Works. | | | | | | | | | | |
| *I.—Timber and other Produce removed from the Forests by Government Agency—* | | | | | | | | | | |
| *a.* Timber ... ... ... ... ... | ..... | 1,27,695 8 1 | 62 7 0 | 74,000 13 1 | 6,104 15 5 | 12,260 7 11 | 168 5 6 | 7,442 7 2 | ..... | 2,27,735 0 2 |
| *b.* Firewood and charcoal ... ... ... | ..... | 29,311 4 0 | 422 7 9 | 1,487 5 1 | 3,069 6 6 | 0 8 0 | 6 4 0 | 1,17,224 5 2 | ..... | 1,51,521 8 6 |
| *c.* Bamboos ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | .. ... |
| *d.* Sandalwood ... ... ... ... | ..... | ..... | 913 4 6 | 374 2 11 | 150 3 5 | ..... | ..... | ..... | ..... | 1,437 10 10 |
| *e.* Grass and other minor produce ... | ..... | 10,023 12 9 | 16,568 7 4 | 2,207 1 2 | 53 13 6 | ..... | 13 6 0 | 17,808 13 0 | ..... | 46,675 5 9 |
| Total A I ... | ..... | 1,67,030 8 10 | 17,966 10 7 | 78,069 6 3 | 9,378 6 10 | 12,260 15 11 | 187 15 6 | 1,42,475 9 4 | ..... | 4,27,369 9 3 |
| *II.—Timber and other Produce removed from the Forests by Consumers or Purchasers* ... | ..... | 595 7 9 | 823 10 6 | 594 10 6 | 1,600 1 6 | 2,489 10 7 | 60 11 4 | 1,772 7 6 | 899 8 6 | 8,836 4 2 |
| Total A II ... | ..... | 595 7 9 | 823 10 6 | 594 10 6 | 1,600 1 6 | 2,489 10 7 | 60 11 4 | 1,772 7 6 | 899 8 6 | 8,836 4 2 |
| *III.—Drift and Waif Wood and confiscated Forest Produce* ... ... ... ... | ..... | 5 13 0 | 5 14 3 | 19 5 1 | 4 3 6 | 27 3 3 | 0 3 0 | 4 2 0 | ..... | 66 12 1 |
| Total A III ... | ..... | 5 13 0 | 5 14 3 | 19 5 1 | 4 3 6 | 27 3 3 | 0 3 0 | 4 2 0 | ..... | 66 12 1 |
| *IV.—Revenue from Forests not managed by Government—* | | | | | | | | | | |
| *a.* Duty on foreign timber and other forest produce ... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Revenue from shared and private forests | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total A IV ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *V.—Rent of leased Forests and Payment to shareholders in Forests managed by Government* ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | 12,917 12 6 | ..... | ..... | ..... | 12,917 12 6 |
| Total A V ... | ..... | ..... | ..... | ..... | ..... | 12,917 12 6 | ..... | ..... | ..... | 12,917 12 6 |
| *VI.—Live Stock, Stores, Tools and Plant—* | | | | | | | | | | |
| *a.* Purchase of cattle ... ... ... | ..... | ..... | ..... | 25 0 0 | ..... | ..... | ..... | ..... | ..... | 25 0 0 |
| *b.* Feed and keep of cattle ... ... ... | ..... | 99 1 4 | ..... | 405 10 7 | ..... | ..... | ..... | 52 4 0 | ..... | 556 15 11 |
| *c.* Purchase of stores, tools and plant ... | 98 4 3 | 209 4 0 | 94 0 0 | 354 7 10 | 17 2 0 | 186 4 0 | 369 13 0 | 553 3 3 | 64 0 0 | 1,946 6 4 |
| Total A VI ... | 98 4 3 | 308 5 4 | 94 0 0 | 785 2 5 | 17 2 0 | 186 4 0 | 369 13 0 | 605 7 3 | 64 0 0 | 2,528 6 3 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| *VII.—Communications and Buildings—* | | | | | | | | | |
| *a.* Roads and bridges ... ... ... | ..... | 685 6 6 | ..... | 719 11 0 | ..... | ..... | 44 11 3 | 2,446 15 9 | ..... | 3,896 12 6 |
| *b.* Buildings .... .... ... ... ... | ..... | 334 2 4 | 1,013 6 9 | 645 2 9 | 121 8 9 | 104 4 0 | 5 6 0 | 243 1 3 | ..... | 2,466 15 10 |
| *c.* Other works ... ... ... ... | ..... | 68 6 6 | 108 4 6 | 196 13 9 | ..... | ..... | ..... | 5 8 0 | ..... | 379 0 9 |
| Total A VII ... | ..... | 1,087 15 4 | 1,121 11 3 | 1,561 11 6 | 121 8 9 | 104 4 0 | 50 1 3 | 2,695 9 0 | ..... | 6,742 13 1 |
| *VIII.—Organization, Improvement, and Extension of Forests—* | | | | | | | | | | |
| *a.* Demarcation ... ... ... ... | ..... | 52 10 5 | 728 12 5 | 707 6 0 | 1 0 0 | 21 6 0 | ..... | ..... | 9 0 0 | 1,520 2 10 |
| *b.* (ii) Cost of settlements; compensation for land and rights ... ... ... | ..... | 12,100 2 6 | 2,338 1 9 | 2,838 7 7 | 3,137 15 10 | ..... | ..... | 902 0 0 | ..... | 21,316 11 8 |
| (ii) Exchange compensation allowance | ..... | 682 5 11 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 682 5 11 |
| *c.* Surveys* ... ... ... ... ... | ..... | 22,799 9 9 | ..... | 8 0 0 | 16 1 0 | 8,070 7 0 | ..... | ..... | ..... | 30,894 1 9 |
| | | *1,091 6 7 | | | | *902 0 2 | | | | *1,993 6 9 |
| *d.* Working-plans ... ... ... ... | —3 0 0 | 6,001 11 1 | 1 2 0 | 857 4 9 | ..... | 4,270 8 9 | ..... | 79 7 4 | ..... | 11,207 1 11 |
| *e.* Sowing and planting ... ... ... | ..... | 266 3 3 | 68 6 0 | 698 3 6 | 81 2 6 | 17 15 0 | 60 5 6 | 67 9 0 | ..... | 1,259 12 9 |
| *f.* Protection from fire ... ... ... | ..... | 10,579 6 6 | 8 4 0 | 6,005 8 6 | 472 6 6 | 266 14 8 | 24 15 9 | 2,388 8 1 | 485 1 8 | 20,231 1 8 |
| *g.* Other works ... ... ... ... | ..... | ..... | ..... | ..... | 4 2 0 | 2 10 0 | ..... | 8 10 0 | 3 0 0 | 18 6 0 |
| Total A VIII ... | —3 0 0 | 52,482 1 5 | 3,144 10 12 | 11,114 14 4 | 3,712 11 10 | *902 0 2 | 85 5 3 | 3,446 2 5 | 497 1 8 | *1,993 6 9 |
| | | *1,091 6 7 | | | | 12,649 13 5 | | | | 87,129 12 6 |
| *IX—Miscellaneous—* | | | | | | | | | | |
| *a.* Refunds ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *b.* Law charges ... ... ... ... | ..... | 29 11 3 | ..... | ..... | ..... | ..... | ..... | 3 12 9 | ..... | 33 8 0 |
| *c.* Other charges ... ... ... ... | 6 15 0 | 907 13 3 | 577 2 1 | 694 11 2 | 467 4 11 | 1,713 2 8 | 879 12 10 | 1,687 4 0 | 469 7 11 | 7,403 9 10 |
| Total A IX ... | 6 15 0 | 937 8 6 | 577 2 1 | 694 11 2 | 467 4 11 | 1,713 2 8 | 879 12 10 | 1,691 0 9 | 469 7 11 | 7,437 1 10 |
| Total A.—Conservancy and Works ... | 102 3 3 | 2,22,447 12 2 | 23,733 10 10 | 92,839 13 3 | 15,301 7 4 | 42,349 2 4 | 1,633 14 2 | 1,52,690 6 3 | 1,930 2 1 | 5,53,028 7 8 |
| | | *1,091 6 7 | | | | *902 0 2 | | | | *1,993 6 9 |

* The total charges for the financial year for Surveys being adjusted in March Final 1894, which is included in this account the difference between the expenditure for April to June 1893, and that for April to June 1894, has been shown here in red ink as communicated by the Superintendent, Forest Surveys, in his No. 193, dated 4th August 1893, and No. 251, dated 4th August 1894.

It has not been included in the account current as it will be adjusted in the accounts for March Final 1895.

| | North Kanara. | Kolába. |
|---|---|---|
| | Rs. a. p. | Rs. a. p. |
| Expenditure at April to June 1893 ... ... ... | 5,189 6 8 | 3,546 13 6 |
| Do. April to June 1894 ... ... ... | 6,280 13 3 | 4,447 13 8 |
| Difference ... | + 1,091 6 7 | + 902 0 2 = 1,993 6 9 |

## FORM No. 61—*continued.*

| Budget Heads. | Direction. | North Kanara Division. | South Kanara Division. | Central Kanara Division. | Dharwar Division. | Kolábá Division. | Rátnagiri Division. | Belgaum Division. | Bijápur Division. | Total for the Forest year 1893-94. |
|---|---|---|---|---|---|---|---|---|---|---|
| B.—ESTABLISHMENTS. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| *I—Salaries—* | | | | | | | | | | |
| *a.* Conservators ... ... ... ... | 12,947 3 11 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 12,947 3 11 |
| *Exchange compensation Allowance* ... | 1,475 8 10 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 1,475 8 10 |
| *b.* Superior Officers... ... ... ... | 2,400 0 0 | 27,016 6 4 | 9,600 0 0 | 5,831 8 11 | 9,031 3 4 | 15,510 12 1 | 2,825 0 0 | 7,836 2 1 | 7,800 0 0 | 87,851 0 9 |
| *Exchange compensation Allowance* ... | ..... | 2,518 8 10 | 874 8 0 | 724 2 5 | 1,358 15 11 | 1,151 9 4 | ..... | 956 6 3 | 532 14 5 | 8,117 1 2 |
| *c.* Subordinate Forest and Depôt Establishments ... ... ... ... | ..... | 17,567 7 8 | 11,661 0 2 | 11,023 11 4 | 13,453 2 0 | 27,752 15 11 | 7,458 13 10 | 22,162 15 0 | 6,713 9 1 | 1,17,793 11 0 |
| *Exchange compensation Allowance* ... | ..... | 146 6 8 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 146 6 8 |
| *d.* Office Establishments ... ... ... | 6,066 13 6 | 3,640 9 8 | 2,278 6 2 | 2,747 11 4 | 1,770 6 6 | 3,093 11 1 | 721 7 1 | 2,329 15 6 | 874 8 0 | 23,523 8 10 |
| *Exchange compensation Allowance* ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *e.* Deputation and Special Allowances ... | 900 7 8 | 2,550 0 0 | ..... | 150 0 0 | 29 0 6 | 653 3 7 | ..... | ..... | ..... | 4,282 11 9 |
| TOTAL B. I ... | 23,790 1 11 | 53,439 7 2 | 24,413 14 4 | 20,477 2 0 | 25,642 12 3 | 48,162 4 0 | 11,005 4 11 | 33,285 6 10 | 15,920 15 6 | 2,56,137 4 11 |
| *II—Travelling Allowances—* | | | | | | | | | | |
| *a.* Conservators ... ... ... ... | 2,400 0 0 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2,400 0 0 |
| *b.* Superior Officers ... ... ... ... | 720 0 0 | 6,101 0 0 | 1,800 0 0 | 1,446 4 11 | 1,626 1 6 | 3,437 11 9 | 1,167 11 10 | 1,817 6 9 | 1,648 9 0 | 19,764 13 9 |
| *c.* Subordinate Forest and Depôt Establishments ... ... ... ... | ..... | 1,563 1 1 | 950 11 4 | 570 0 0 | 1,169 11 10 | 1,580 10 7 | 673 1 4 | 1,363 13 7 | 229 0 8 | 8,100 2 5 |
| *d.* Office Establishments ... ... ... | 1,833 9 0 | 1,219 2 6 | 637 6 0 | 757 8 3 | 583 7 5 | 834 8 11 | 307 11 0 | 662 13 0 | 323 12 5 | 7,159 14 6 |
| TOTAL B II ... | 4,953 9 0 | 8,883 3 7 | 3,388 1 4 | 2,773 13 2 | 3,379 4 9 | 5,852 15 3 | 2,148 8 2 | 3,844 1 4 | 2,201 6 1 | 37,424 14 8 |
| *III—Contingencies—* | | | | | | | | | | |
| *a.* Stationery... ... ... ... ... | 9 14 0 | 369 7 11 | 549 14 10 | 276 11 5 | 112 13 2 | 389 4 3 | 128 7 10 | 385 4 6 | 117 0 0 | 2,338 13 11 |
| *b.* Carriage of Tents and Records... ... | 649 8 3 | 466 0 3 | 152 5 0 | 371 4 4 | 123 14 0 | 446 6 9 | 122 6 6 | 196 10 0 | 157 2 6 | 2,685 9 7 |
| *c.* Rents, Rates and Taxes ... ... ... | 350 0 0 | 31 0 0 | ..... | 260 0 0 | 60 0 0 | 69 0 0 | 244 3 1 | 410 0 0 | 72 8 0 | 1,496 11 1 |
| *d.* Pay of Police Guards ... ... ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| *e.* Official Postage ... ... ... ... | 264 4 0 | 341 14 0 | 471 11 6 | 427 9 0 | 360 8 0 | 805 3 0 | 265 10 6 | 476 1 0 | 140 0 0 | 3,552 13 0 |
| *f.* Sundries ... ... ... ... ... | 376 13 9 | 143 8 3 | 337 7 9 | 165 9 5 | 124 5 1 | 194 15 10 | 51 14 0 | 308 1 8 | 120 8 3 | 1,823 4 0 |
| Payments to Officers of other Provinces ... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| TOTAL B III ... | 1,650 8 0 | 1,351 14 5 | 1,511 7 1 | 1,501 2 2 | 781 8 3 | 1,904 13 10 | 812 9 11 | 1,776 1 2 | 607 2 9 | 11,897 3 7 |
| Total, B.—ESTABLISHMENTS ... | 30,394 2 11 | 63,674 9 2 | 29,313 6 9 | 24,752 1 4 | 29,803 9 3 | 55,920 1 1 | 13,966 7 0 | 38,905 9 4 | 18,729 8 4 | 3,05,459 7 2 |
| GRAND TOTAL OF EXPENDITURE ... | 30,496 6 2 | 2,86,122 5 4<br>*1,091 6 7 | 53,047 1 7 | 1,17,591 14 7 | 45,105 0 7 | 98,269 3 5<br>*902 0 2 | 15,600 5 2 | 1,91,595 15 7 | 20,659 10 5 | 8,58,487 14 10<br>*1,993 6 7 |

* For Rs. 1,993-6-7 see remarks at foot of the previous page.

No. F./15509

Forwarded to the Conservator of Forests, Southern Circle, under Section 267 of the Forest Department Code.

*Accountant General's Office,*
*Bombay, 8th September 1894.*

O. T. BARROW,
Accountant General.

# FORM No. 62.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Annual Account Current for the Forest year 1893-94.*

| | Rs. a. p. | Rs. a. p. | | Rs. a. p. | Rs. a. p. |
|---|---|---|---|---|---|
| To Opening Balance... ... ... ... ... ... ... ... | ..... | 484 6 2 | 1. Refunds and drawbacks—Refunds— | | |
| „ VIII. Assessed Taxes—Income Tax— | | | Divided Heads, Forest ... ... ... ... ... ... ... | ..... | 3,283 10 0 |
| Deductions by Government from Salaries... ... ... | ..... | 3,572 9 0 | 11. Forest (as per Summary) ... ... ... ... ... ... | ..... | 8,58,487 14 10 |
| „ IX. Forest (as per Summary) ... ... ... ... ... | ..... | 15,31,316 10 11 | 19. Law and Justice— | | |
| „ XII. Interest—. | | | Jails, District Jails, Contingencies ... ... ... ... ... | ..... | |
| Interest on Arrears of Revenue ... ... ... ... | ..... | 55 5 10 | Revenue Deposits (Forests) ... ... ... ... ... ... ... | ..... | 91,020 12 8 |
| „ XXV. Miscellaneous (Provincial)— | | | Cheques and Bills (Forest Cheque cancelled) ... ... ... ... | ..... | 10,337 3 4 |
| Sale-proceeds of old Stores and Materials ... ... | 7 14 6 | | Advances Recoverable— | | |
| Other Deposits—Unclaimed Deposits ... ... ... | 2 10 6 | | Forest Advances ... ... ... ... ... ... ... ... | 4,83,144 3 2 | |
| | | 10 9 0 | Tentage Advances ... ... ... ... ... ... ... ... | 8,335 13 1 | |
| | | | Objection Book Advances ... ... ... ... ... ... ... | ..... | 4,91,480 0 3 |
| „ Revenue Deposits (Forest) ... ... ... ... ... ... | ..... | 78,180 15 11 | Cash Recoveries ... ... ... ... ... ... ... ... ... | ..... | 8,424 5 8 |
| „ Cheques and Bills (Departmental cheques), Forest ... ... ... | ..... | 9,09,219 3 8 | | | |
| „ Advances Recoverable— | | | Forest Remittances— | | |
| Forest Advances ... ... ... ... ... ... ... | 4,68,311 13 2 | | Remittances to Treasuries ... ... ... ... ... ... ... | 12,20,454 15 1 | |
| Tentage Advances ... ... ... ... ... ... ... | 8,706 9 8 | | Inter-divisional Transfers ... ... ... ... ... ... ... | ..... | |
| Objection Book Advances ... ... ... ... ... ... | ..... | 4,77,018 6 10 | Inter-departmental Transfers ... ... ... ... ... ... | 478 8 7 | |
| „ Cash Recoveries ... ... ... ... ... ... ... ... | ..... | 8,424 5 8 | | | 12,20,933 7 8 |
| „ Forest Remittances— | | | Accounts Current— | | |
| Remittances to Treasuries ... ... ... ... ... ... | 1,325 12 4 | | Account between Bombay and Military, Bombay— | | |
| Inter-divisional Transfers ... ... ... ... ... ... | 30,869 13 6 | | | | |
| Inter-departmental Transfers ... ... ... ... ... | 727 2 5 | | IV. Items adjustable—Military ... ... ... ... ... | | 8,591 12 11 |
| | | 32,922 12 3 | Account between Bombay and Public Works Department, Bombay— | | |
| „ Bombay Uncovenanted Service Family Pension Fund— | | | (Ordinary Branches)— | | |
| Widows' Branch ... ... ... ... ... ... ... ... | ..... | 90 6 5 | IV. Items adjustable by Public Works Department ... ... | ..... | 676 6 1 |
| „ Account between India and Bombay— | | | Account between Bombay and Public Works Department— | | |
| III. Items adjustable by India— | | | (Railway Branch)— | | |
| Bengal Military Fund ... ... ... ... ... ... | ..... | | Southern Maratha Railway— | | |
| Bengal Military Orphan Fund ... ... ... ... ... | ..... | | IV. Items adjustable by Public Works Department ... ... | ..... | 3,27,312 14 5 |
| Bengal Uncovenanted Service Family Pension Fund ... ... | 281 10 0 | | Account between Bombay and Marine— | | |
| | | 281 10 0 | IV.—Miscellaneous ... ... ... ... ... ... | ..... | 22,105 10 10 |
| „ Account between Bombay and Public Works Department, Bombay— | | | | | |
| IV. Payments into Treasuries by Civil Officers on account of Public Works Department ... ... ... ... ... | 1,424 12 1 | 1,424 12 1 | | | |
| | | | Closing Balance ... | ..... | 347 15 1 |
| Total ... | ..... | 30,43,002 1 9 | Total ... | ..... | 30,43,002 1 9 |

No. $\frac{F.}{15193}$

Forwarded to the Conservator of Forests, Southern Circle, under Section 267 of the Forest Department Code.

*Accountant General's Office,*
*Bombay, 8th September 1894.*

O. T. BARROW,
Accountant General.

# ANNUAL FORM No. 63.

## Forest Department, Bombay, Southern Circle.

*Revenue received and Outstandings on account of Revenue during 1893-94.*

| Division. | Particulars. | Outstandings at commencement of year. | Value of Sales and other Revenue during year. | Total. | Amount realized during year. | Balance due to the Department at end of year. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Northern Division of Kanara. | *I.—Timber and other produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | 99,041 6 6 | 3,99,192 7 11 | 4,98,233 14 5 | 3,49,914 9 3 | 1,48,319 5 2 | |
| | *b.* Firewood and charcoal ... ... | 1,456 5 11 | 48,860 4 8 | 50,316 10 7 | 47,922 0 3 | 2,394 10 4 | |
| | *c.* Bamboos ... ... ... | ..... | 0 12 0 | 0 12 0 | 0 12 0 | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *e.* Grass and other minor produce ... | ..... | 19,672 9 2 | 19,672 9 2 | 19,142 0 9 | 530 8 5 | |
| | *II.—Timber and other produce removed from the Forests by Consumers or Purchasers—* | | | | | | |
| | *a.* Timber ... ... ... | 181 5 10 | 22,941 1 8 | 23,122 7 6 | 20,546 6 11 | 2,576 0 7 | |
| | *b.* Firewood and charcoal ... ... | 3,801 8 1 | 35,581 13 3 | 39,383 5 4 | 26,429 6 7 | 12,953 14 9 | |
| | *c.* Bamboos ... ... ... | ..... | 33,048 12 11 | 33,048 12 11 | 33,048 12 11 | ..... | |
| | *d.* Grazing and fodder grass .. | ..... | 7,665 4 9 | 7,665 4 9 | 7,665 4 9 | ..... | |
| | *e.* Other minor produce ... ... | ..... | 1,909 3 3 | 1,909 3 3 | 1,909 3 3 | ..... | |
| | *III.—Drift and Waif Wood and Confiscated Forest produce* ... ... ... | ..... | 91 3 6 | 91 3 6 | 91 3 6 | ..... | |
| | Total, Northern Division of Kanara ... | 1,04,480 10 4 | 5,68,963 9 1 | 6,73,444 3 5 | 5,06,669 12 2 | 1,66,774 7 3 | |
| Central Division of Kanara. | *I.—Timber and other produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | *31,496 4 7 | 2,31,440 4 11 | 2,62,936 9 6 | 2,10,105 8 2 | 52,831 1 4 | *The balance at the close of the last Forest year was Rs. 24,408-12-7. The increase is due to a sum of Rs. 7,087-8-0 having been transferred from the accounts of the Southern Division, Kanara. |
| | *b.* Firewood and charcoal ... ... | ..... | 1,866 0 0 | 1,866 0 0 | 566 0 0 | 1,300 0 0 | |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | 4,002 0 7 | 4,002 0 7 | 4,002 0 7 | ..... | |
| | *e.* Grass and other minor produce ... | 9 13 0 | 5,215 8 0 | 5,225 5 0 | 3,356 15 5 | 1,868 5 7 | |
| | *II.—Timber and other produce removed from the Forests by Consumers or Purchasers—* | | | | | | |
| | *a.* Timber ... ... ... | 2,878 2 4 | 6,411 7 8 | 9,289 10 0 | 7,354 13 0 | 1,934 13 0 | |
| | *b.* Firewood and charcoal ... ... | 11,329 6 9 | 2,399 1 9 | 13,728 8 6 | 2,748 9 9 | 10,979 14 9 | |
| | *c.* Bamboos ... ... ... | ..... | 11,280 2 3 | 11,280 2 3 | 11,280 2 3 | ..... | |
| | *d.* Grazing and fodder grass ... | ..... | 7,171 5 9 | 7,171 5 9 | 7,171 5 9 | ..... | |
| | *e.* Other minor produce ... ... | 803 4 0 | 4,600 2 0 | 5,403 6 0 | 5,401 8 0 | 1 14 0 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | *III.—Drift and Waif Wood and Confiscated Forest produce* ... ... ... | ..... | 2,047 1 6 | 2,047 1 0 | 2,034 3 9 | 12 13 9 | |
| | Total, Central Division of Kanara ... | *46,516 14 8 | 2,76,433 2 5 | 3,22,950 1 1 | 2,54,021 2 8 | 68,928 14 5 | * Please see remarks against "a Timber," above. |
| Southern Division of Kanara. | *I.—Timber and other produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... .. | †7,067 8 0 | 799 8 0 | 7,867 0 0 | 7,867 0 0 | ..... | † The balance at the close of the last Forest year was Rs. 14,155. Of this, Rs. 7,087-8-0 were transferred to the Central Division of Kanara. Hence the difference. (Please see remarks against Central Division, Kanara.) |
| | *b.* Firewood and charcoal ... ... | ..... | 659 0 0 | 659 0 0 | 659 0 0 | ..... | |
| | *c.* Bamboos .. ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | 7,224 14 2 | 7,224 14 2 | 7,224 14 2 | ..... | |
| | *e.* Grass and other minor produce ... | ..... | 35,526 10 5 | 35,526 10 5 | 35,526 10 5 | ..... | |
| | *II.—Timber and other produce removed from the Forests by Consumers or Purchasers—* | | | | | | |
| | *a.* Timber ... ... ... | 11 8 0 | 11,069 9 6 | 11,081 1 6 | 10,845 14 0 | 235 3 6 | |
| | *b.* Firewood and charcoal ... ... | 9,517 8 0 | 3,770 13 6 | 13,288 5 6 | 8,464 9 6 | 4,823 12 0 | |
| | *c.* Bamboos ... ... ... | ..... | 1,027 1 0 | 1,027 1 0 | 1,025 1 0 | 2 0 0 | |
| | *d.* Grazing and fodder grass ... | ..... | 8,833 2 9 | 8,833 2 9 | 8,833 2 9 | ..... | |
| | *e.* Other minor produce ... ... | 51 12 0 | 6,261 8 2 | 6,313 4 2 | 6,303 8 2 | 9 12 0 | |
| | *III.—Drift and Waif Wood and Confiscated Forest produce* ... ... ... | ..... | 598 12 4 | 598 12 4 | 598 12 4 | ..... | |
| | Total, Southern Division of Kanara ... | ‡16,648 4 0 | 75,770 15 10 | 92,419 3 10 | 87,348 8 4 | 5,070 11 6 | ‡ Please see remarks against "a Timber," above. |
| Belgaum Division. | *I.—Timber and other produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... .. | 176 0 0 | 34,085 9 8 | 34,261 9 8 | 33,458 3 8 | 803 6 0 | |
| | *b.* Firewood and charcoal ... ... | ..... | 2,52,152 2 6 | 2,52,152 2 6 | 2,15,709 6 6 | 36,442 12 0 | |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | 837 13 3 | 837 13 3 | 837 13 3 | ..... | |
| | *e.* Grass and other minor produce ... | ..... | 77,232 15 11 | 77,232 15 11 | 77,232 15 11 | ..... | |
| | *II.—Timber and other produce removed from the Forests by Consumers or purchasers—* | | | | | | |
| | *a.* Timber ... ... ... | ..... | 10,704 7 0 | 10,704 7 0 | 10,704 7 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 8,604 11 6 | 8,604 11 6 | 8,604 11 6 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | 6,796 11 0 | 6,796 11 0 | 6,796 11 0 | ..... | |
| | *d.* Grazing and fodder grass ... | ..... | 32,752 7 1 | 32,752 7 1 | 32,752 7 1 | ..... | |
| | *e.* Other minor produce ... ... | ..... | 10,076 2 4 | 10,076 2 4 | 10,076 2 4 | ..... | |
| | *III.—Drift and Waif Wood and Confiscated Forest produce* ... ... ... | ..... | 528 14 9 | 528 14 9 | 445 6 9 | 83 8 0 | |
| | *V. c.* Other sources ... ... | 2,300 0 0 | 14,004 9 9 | 16,304 9 9 | 10,400 1 9 | 5,904 8 0 | |
| | Total, Belgaum Division ... | 2,476 0 0 | 4,47,776 8 9 | 4,50,252 8 9 | 4,07,018 6 9 | 43,234 2 0 | |

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## ANNUAL FORM No. 63—*continued.*

| Division. | Particulars. | Outstandings at commencement of year. | Value of Sales and other Revenue during year. | Total. | Amount realized during year. | Balance due to the Department at end of year. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Dharwar Division. | *I.—Timber and other produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | 2,628 4 0 | 33,538 6 3 | 36,166 10 3 | 29,501 14 6 | 6,664 11 9 | |
| | *b.* Firewood and charcoal ... ... | 25 0 0 | 13,117 0 0 | 13,142 0 0 | 13,142 0 0 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | 9,605 8 7 | 9,605 8 7 | 9,605 8 7 | ..... | |
| | *e.* Grass and other minor produce ... | ..... | 259 11 0 | 259 11 0 | 259 11 0 | | |
| | *II.—Timber and other produce removed from the Forests by Consumers or purchasers —* | | | | | ..... | |
| | *a.* Timber ... ... ... | ..... | 1,309 10 5 | 1,309 10 5 | 1,309 10 5 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 826 3 10 | 826 3 10 | 826 3 10 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | 5,856 9 8 | 4,856 9 8 | 5,856 9 8 | ..... | |
| | *d.* Grazing and fodder grass ... | ..... | 28,253 8 3 | 28,253 8 3 | 28,253 8 3 | ..... | |
| | *e.* Other minor produce ... ... | ..... | 2,624 11 1 | 2,624 11 1 | 2,624 11 1 | ..... | |
| | *III.—Drift and Waif Wood and Confiscated Forest produce* ... ... ... | ..... | 50 10 3 | 50 10 3 | 50 10 3 | ..... | |
| | Total, Dharwar Division ... | 2,653 4 0 | 95,441 15 4 | 98,095 3 4 | 91,430 7 7 | 6,664 11 9 | |
| Bijápur Division. | *I.—Timber and other produce removed from the Forests by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *d.* Sandalwood ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | *e.* Grass and other minor produce ... | ..... | 22 0 0 | 22 0 0 | 22 0 0 | ..... | |
| | *II.—Timber and other poduce removed from the Forests by Consumers or purchasers —* | | ..... | ..... | ..... | ..... | |
| | *a.* Timber ... ... ... | ..... | 819 10 0 | 819 10 0 | 819 10 0 | ..... | |
| | *b.* Firewood and charcoal ... ... | ..... | 7,572 7 0 | 7,572 7 0 | 7,572 7 0 | ..... | |
| | *c.* Bamboos ... ... ... | ..... | 2 8 0 | 2 8 0 | 2 8 0 | ..... | |
| | *d.* Grazing and fodder grass ... | ..... | 13,373 15 3 | 13,373 15 3 | 13,373 15 3 | ..... | |
| | *e.* Other minor produce ... ... | ..... | 3,560 1 6 | 3,560 1 6 | 3,560 1 6 | ..... | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | *III.—Drift and Waif Wood and Confiscated Forest produce* ... ... | ..... | 24 12 0 | 24 12 0 | 24 12 0 | ..... |
| | Total, Bijápur Division ... | ..... | 25,375 5 9 | 25,375 5 9 | 25,375 5 9 | ..... |
| Kolábá Division. | *I.—Timber and other produce removed from the Forests by Government Agency—* | | | | | |
| | *a.* Timber ... ... ... | 603 12 0 | 39,157 3 9 | 39,760 15 9 | 39,050 15 9 | 710 0 0 |
| | *b.* Firewood and charcoal ... ... | ..... | 873 7 0 | 873 7 0 | 873 7 0 | ..... |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... |
| | *d.* Sandalwood ... ... ... | ..... | ..... | ..... | ..... | ..... |
| | *e.* Grass and other minor produce ... | ..... | ..... | ..... | ..... | ..... |
| | *II.—Timber and other produce removed from the Forests by Consumers or Purchasers—* | | | | | |
| | *a.* Timber ... ... ... | 1,323 12 0 | 75,746 0 7 | 77,069 12 7 | 76,156 4 7 | 913 8 0 |
| | *b.* Firewood and charcoal ... ... | 1,500 0 0 | 19,628 5 7 | 21,128 5 7 | 19,598 7 7 | 1,592 14 0 |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... |
| | *d.* Grazing and fodder grass ... | 129 12 0 | 3,342 7 0 | 3,472 3 0 | 3,472 3 0 | ..... |
| | *e.* Other minor produce ... ... | 1,027 8 0 | 2,277 6 9 | 3,304 14 9 | 2,277 6 9 | 1,027 8 0 |
| | *III.—Drift and Waif Wood and Confiscated Forest produce* ... ... ... | ..... | 1,029 14 4 | 1,029 14 4 | 1,029 14 4 | ..... |
| | Total, Kolábá Division ... | 4,584 12 0 | 1,42,054 13 0 | 1,46,639 9 0 | 1,42,458 11 0 | 4,180 14 0 |
| Ratnagiri Division. | *I.—Timber and other produce removed from the Forests by Government Agency—* | | | | | |
| | *a.* Timber ... ... ... | ..... | 415 4 0 | 415 4 0 | 415 4 0 | ..... |
| | *b.* Firewood and charcoal ... ... | ..... | 18 0 0 | 18 0 0 | 18 0 0 | ..... |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | ..... |
| | *d.* Sandalwood ... ... ... | ..... | ..... | ..... | ..... | ..... |
| | *e.* Grass and other minor produce ... | ..... | ..... | ..... | ..... | ..... |
| | *II.—Timber and other produce removed from the Forests by Consumers or Purchasers—* | | | | | |
| | *a.* Timber ... ... ... | 542 3 0 | 7,505 12 2 | 8,047 15 2 | 8,047 15 2 | ..... |
| | *b.* Firewood and charcoal ... ... | 639 4 4 | 469 0 9 | 1,108 5 1 | 1,106 6 3 | 1 14 10 |
| | *c.* Bamboos ... ... ... | ..... | ..... | ..... | ..... | .... |
| | *d.* Grazing and fodder grass ... | ..... | 239 12 6 | 239 12 6 | 239 12 6 | ..... |
| | *e.* Other minor produce ... ... | ..... | 6 0 3 | 6 0 3 | 6 0 3 | ..... |
| | *III.—Drift and Waif Wood and Confiscated Forest produce* ... ... ... | ..... | 23 10 0 | 23 10 0 | 23 10 0 | ..... |
| | Total, Ratnagiri Division ... | 1,181 7 4 | 8,677 7 8 | 9,858 15 0 | 9,857 0 2 | 1 14 10 |

## ANNUAL FORM No. 63—*concluded.*

| Division. | Particulars. | Outstandings at commencement of year. | Value of Sales and other Revenue during year. | Total. | Amount realized during year. | Balance due to the Department at end of year. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Total of the Circle. | *I.—Timber and other produce removed from the Forest by Government Agency—* | | | | | | |
| | *a.* Timber ... ... ... | 1,41,013 3 1 | 7,38,628 12 6 | 8,79,641 15 7 | 6,70,313 7 4 | 2,09,328 8 3 | |
| | *b.* Firewood and charcoal ... ... | 1,481 5 11 | 3,17,545 14 2 | 3,19,027 4 1 | 2,78,889 13 9 | 40,137 6 4 | |
| | *c.* Bamboos ... ... ... | ..... | 0 12 0 | 0 12 0 | 0 12 0 | ..... | |
| | *d.* Sandalwood... ... ... | ..... | 21,692 4 7 | 21,692 4 7 | 21,692 4 7 | ..... | |
| | *e.* Grass and other minor produce ... | 9 13 0 | 1,37,907 6 6 | 1,37,917 3 6 | 1,35,518 5 6 | 2,398 14 0 | |
| | *II.—Timber and other produce removed from the Forests by Consumers or Purchasers—* | | | | | | |
| | *a.* Timber ... ... ... | 4,936 15 2 | 1,36,507 11 0 | 1,41,444 10 2 | 1,35,785 1 1 | 5,659 9 1 | |
| | *b.* Firewood and charcoal ... .. | 26,787 11 2 | 78,852 9 2 | 1,05,640 4 4 | 75,350 14 0 | 30,289 6 4 | |
| | *c.* Bamboos ... ... .. | ..... | 58,011 12 10 | 58,011 12 10 | 58,009 12 10 | 2 0 0 | |
| | *d.* Grazing and fodder grass ... | 129 12 0 | 1,01,631 15 4 | 1,01,761 11 4 | 1,01,761 11 4 | ..... | |
| | *e.* Other minor produce ... ... | 1,882 8 0 | 31,315 3 4 | 33,197 11 4 | 32,158 9 4 | 1,039 2 0 | |
| | *III.—Drift and Waif Wood and Confiscated Forest produce—* ... ... | ..... | 4,394 14 8 | 4,394 14 8 | 4,298 8 11 | 96 5 9 | |
| | **V. c.* Other sources ... ... | 2,300 0 0 | 18,330 6 6 | 20,630 6 6 | 14,725 14 6 | 5,904 8 0 | * As there are no outstandings under "*V.c.*" in any of the Divisions except Belgaum, the Revenue under this head is not shown in detail against other Divisions. |
| | Grand Total ... | 1,78,541 4 4 | 16,44,819 10 7 | 18,23,360 14 11 | 15,28,505 3 2 | 2,94,855 11 9 | |

*Note.*—The revenue under Budget Heads "IV" and "V (*a* and *b*)" is Rs. 25-4-2 and Rs. 2,786-3-7 respectively. The total amount realized during the year is Rs. 15,31,316-10-11 (Vide Form No. 61).

*Belgaum, 29th September 1894.*

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

B 1106—17 S. G.

# FORM No. 64.

## Forest Department, Bombay, Southern Circle.

*Outstandings and Libilities on account of Contractors and Disbursers for the Forest year 1893-94 from 1st July 1893 to 30th June 1894.*

| Division. | Department Debtor. | | | Department Creditor. | | | Balance due | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | At commencement of year. | Recoveries in Cash and Value of supplies and work done during year. | At close of year. | At commencement of year. | Payments made during year. | At close of year. | To Department (Outstandings). | By Department (Liabilities). | |
| *Contractors.* | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| North Kánara ... | ..... | 55,890 0 0 | 55,890 0 0 | 4,500 0 0 | 64,990 0 0 | 69,490 0 0 | 13,600 0 0 | ... | |
| South Kánara ... | ..... | 7,600 0 0 | 7,600 0 0 | 2,000 0 0 | 5,600 0 0 | 7,600 0 0 | ..... | ... | |
| Central Kánara ... | ..... | 20,697 14 11 | 20,697 14 11 | 7,993 0 3 | 26,243 0 0 | 34,236 0 3 | 13,538 1 4 | ... | |
| Dhárwár ... ... | ..... | 2,680 5 4 | 2,680 5 4 | 55 5 4 | 2,625 0 0 | 2,680 5 4 | ..... | ... | |
| Kolába ... ... | ..... | 1,703 8 0 | 1,703 8 0 | ..... | 1,703 8 0 | 1,703 8 0 | ..... | ... | |
| Ratnágiri ... ... | ..... | 25 0 0 | 25 0 0 | ..... | 25 0 0 | 25 0 0 | ..... | ... | |
| Belgaum ... .. | ..... | 54,565 6 11 | 54,565 6 11 | 6,525 0 0 | 57,240 6 11 | 63,765 6 11 | 9,200 0 0 | ... | |
| Total, Contractors ... | ..... | 1,43,162 3 2 | 1,43,162 3 2 | 21,073 5 7 | 1,58,426 14 11 | 1,79,500 4 6 | 36,338 1 4 | ... | |
| *Disbursers.* | | | | | | | | | |
| North Kánara ... | ..... | 1,01,624 6 5 | 1,01,624 6 5 | 2,093 12 0 | 1,02,340 12 4 | 1,04,434 8 4 | 2,810 1 11 | ... | |
| South Kánara ... | ..... | 33,834 6 10 | 33,834 6 10 | 4,812 12 5 | 32,553 11 7 | 37,366 8 0 | 3,532 1 2 | ... | |
| Central Kánara ... | ..... | 29,323 11 9 | 29,323 11 9 | 2,713 0 10 | 28,904 3 0 | 31,617 3 10 | 2,293 8 1 | ... | |
| Dhárwár ... ... | ..... | 25,422 13 3 | 25,422 13 3 | 726 5 5 | 26,025 10 4 | 26,751 15 9 | 1,329 2 6 | ... | |
| Kolába ... ... | ..... | 60,677 1 8 | 60,677 1 8 | 4,303 7 8 | 59,286 7 1 | 63,589 14 9 | 2,912 13 1 | ... | |
| Ratnágiri ... ... | ..... | 8,540 4 3 | 8,540 4 3 | 175 15 8 | 8,651 0 0 | 8,826 15 8 | 286 11 5 | ... | |
| Belgaum ... ... | ..... | 58,475 2 8 | 58,475 2 8 | 1,905 10 0 | 59,668 15 11 | 61,574 9 11 | 3,099 7 3 | ... | |
| Bijápur ... ... | 0 8 0 | 7,251 11 2 | 7,252 3 2 | 53 4 5 | 7,286 8 0 | 7,339 12 5 | 88 1 3 | 0 8 0 | |
| Total, Disbursers ... | 0 8 0 | 3,25,149 10 0 | 3,25,150 2 0 | 16,784 4 5 | 3,24,717 4 3 | 3,41,501 8 8 | 16,351 14 8 | 0 8 0 | |
| Grand Total ... | 0 8 0 | 4,68,311 13 2 | 4,68,312 5 2 | 37,857 10 0 | 4,83,144 3 2 | 5,21,001 13 2 | 52,690 0 0 | 0 8 0 | |

No. F./15194.

Forwarded to the Conservator of Forests, Southern Circle, under Section 267 of the Forest Department Code.

*Accountant Generl's Office,*
*Bombay, 8th September 1894.*

O. T. BARROW,
Accountant General.

# FORM No. 65.

## FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

*Financial results of the year 1893-94.*

| Division. | TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY. | | OTHER REVENUE. | | FORMATION, PROTECTION AND IMPROVEMENT OF FORESTS. | TOTAL. | | REMARKS. |
|---|---|---|---|---|---|---|---|---|
| | Receipts. | Charges. | Receipts. | Charges. | Charges. | Receipts. | Charges. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Direction ... ... | ... | ... | 70 | 30,496 | ... | 70 | 30,496 | |
| Northern Division of Kanara. ... ... | 4,17,070 | 2,00,560 | 91,202 | 7,338 | 79,316 | 5,08,272 | 2,87,214 | |
| Central Division of Kanara ... ... | 2,20,064 | 87,250 | 34,661 | 10,062 | 20,280 | 2,54,725 | 1,17,592 | |
| Southern Division of Kanara ... ... | 51,477 | 25,676 | 36,340 | 16,151 | 11,220 | 87,817 | 53,047 | |
| Belgaum Division ... | 3,27,239 | 1,63,131 | 79,798 | 14,092 | 14,373 | 4,07,037 | 1,91,596 | |
| Dharwar do. ... | 52,509 | 29,542 | 39,392 | 1,721 | 13,842 | 91,901 | 45,105 | |
| Bijápur do. ... | 22 | ... | 25,466 | 6,115 | 14,545 | 25,488 | 20,660 | |
| Kolábá do. .. | 40,439 | 30,692 | 1,05,485 | 26,110 | 42,369 | 1,45,924 | 99,171 | |
| Ratnagiri do. ... | 457 | 3,680 | 9,625 | 4,432 | 7,488 | 10,082 | 15,600 | |
| Total ... | 11,09,277 | 5,40,531 | 4,22,039 | 1,16,517 | 2,03,433 | 15,31,316 | 8,60,481 | |

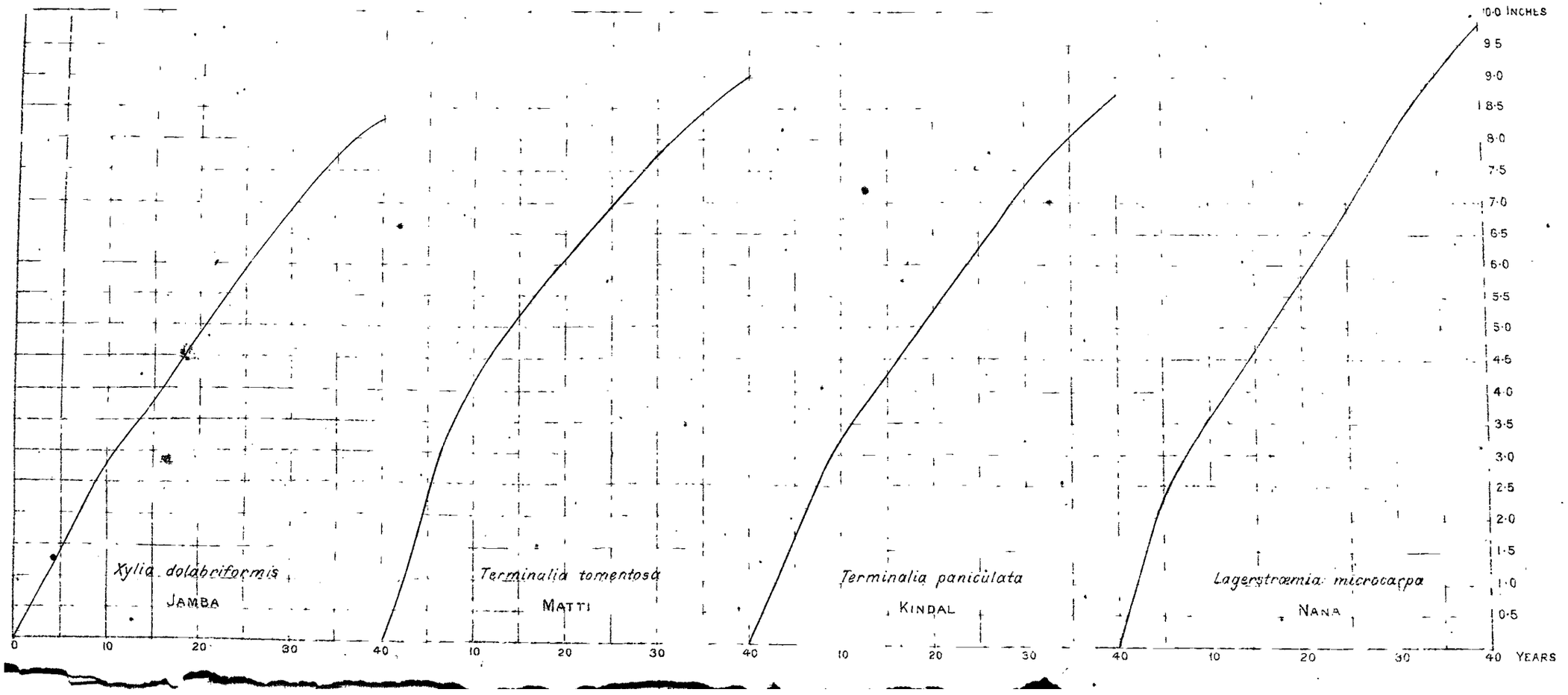
*Belgaum, 29th September 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

# EXPERIMENTS IN COPPICE-GROWTH

## *BELGAUM DIVISION*

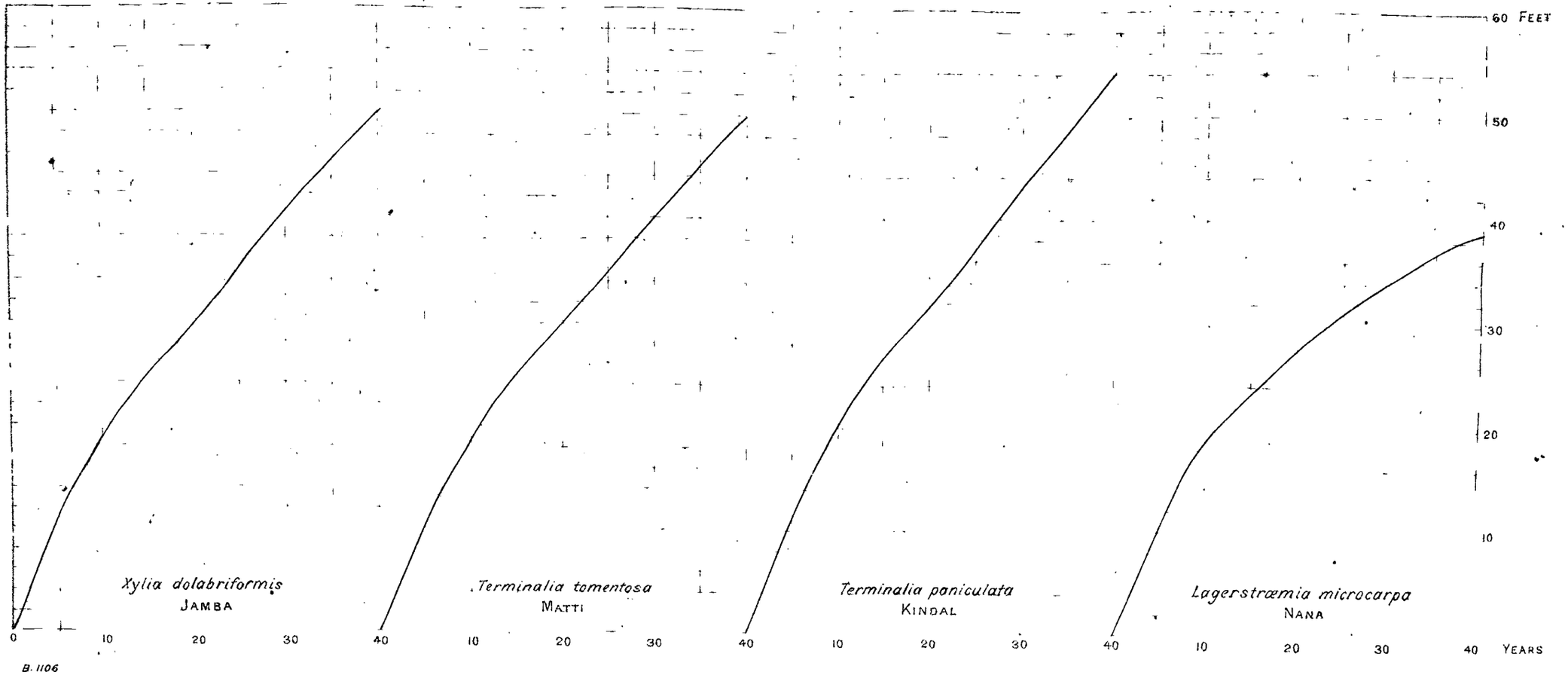
### DIAMETER-GROWTH



# EXPERIMENTS IN COPPICE-GROWTH

## *BELGAUM DIVISION*

### HEIGHT-GROWTH




B. 1106

DRAWN & LITHO. GOVT PHOTOZINCO. OFFICE, POONA 1894.

# A.

## EXPERIMENTS IN COPPICE-GROWTH, 1894. (MR. H. MURRAY.)

### BELGAUM DIVISION.

### *(1). Diameter and height-growth.*

| Age. | Diameter Inches. | | Height Feet. | | Number of shoots per stump. | Length of bole. |
|---|---|---|---|---|---|---|
| | Total. | Mean Yearly $\frac{b}{a}$ | Total. | Mean Yearly $\frac{d}{a}$ | | |
| *a* | *b* | *c* | *d* | *e* | *f* | *g* |
| **XYLIA DOLABRIFORMIS (JAMBA).** | | | | | | |
| 10 ... | 2·75 | ·275 | 19 | 1·9 | ... | ... |
| 20 ... | 4·50 | ·225 | 29 | 1·45 | ... | ... |
| 30 ... | 7·00 | ·233 | 40 | 1·33 | ... | ... |
| 40 ... | 8·25 | ·206 | 50 | 1·25 | ... | 29 |
| 1 ... | ... | ... | ... | ... | 14 | ... |
| 40 ... | ... | ... | ... | ... | 2—4 | 29 |
| **TERMINALIA TOMENTOSA (MATTI).** | | | | | | |
| 10 ... | 4·20 | ·42 | 19 | 1·9 | ... | ... |
| 20 ... | 6·00 | ·30 | 29 | 1·45 | ... | ... |
| 30 ... | 7·80 | ·26 | 40 | 1·33 | ... | ... |
| 40 ... | 9·00 | ·225 | 50 | 1·25 | ... | 30 |
| 1 ... | ... | ... | ... | ... | 9 | ... |
| 40 ... | ... | ... | ... | ... | 1—2 | 30 |
| **TERMINALIA PANICULATA (KINDAL).** | | | | | | |
| 10 ... | 3·40 | ·34 | 20 | 2 | ... | ... |
| 20 ... | 5·20 | ·26 | 30 | 1·5 | ... | ... |
| 30 ... | 7·15 | ·238 | 42 | 1·4 | ... | ... |
| 40 ... | 8·70 | ·217 | 54 | 1·35 | ... | 31 |
| 1 ... | ... | ... | ... | ... | 9 | ... |
| 40 ... | ... | ... | ... | ... | 2—3 | ... |
| **LAGERSTRŒMIA MICROCARPA (NANA).** | | | | | | |
| 10 ... | 3·7 | ·37 | 19 | 1·9 | ... | ... |
| 20 ... | 5·5 | ·275 | 26 | 1·3 | ... | ... |
| 30 ... | 8·4 | ·28 | 34 | 1·13 | ... | ... |
| 40 ... | 9·7 | ·242 | 39 | ·97 | ... | 27 |
| 1 ... | ... | ... | ... | ... | 7 | ... |
| 40 ... | ... | ... | ... | ... | 2—3 | 27 |

*Remarks.*—These results are based on experiments on 3 or 4 trees for each species. The *data* were determined for all ages of the trees examined, mature trees only having been examined. Their ages varied from 38 to 44 years.

*Station.*—Place: Nagargali; altitude: 2,200 feet; rainfall: about 80″; soil: laterite, more or less humus. Rock laterite overlying gneiss. Fire protected for last six years. The 4 species examined constitute about 90 per cent. of the crop density ·9.

J. L. L. MACGREGOR,

*Belgaum, 29th September 1894.* Conservator of Forests, Southern Circle.

(2) RESULTS OF AN EXPERIMENT MADE BY MR. ANDREWS IN THE COPPICE NEAR NAGARGALI, DURING FEBRUARY 1886, TO DETERMINE THE AVERAGE ANNUAL INCREMENT PER ACRE.

The experiment was made on an area of 2 acres, in a well stocked part of the forest with the following results :—

*Number of Trees and their Circumferences.*

The circumferences were measured at 5 feet from the ground, from 6 in. to 44 in. thus 6, 8, 10, 12.....44 in. Above 44 in. the trees were considered exceptionally large and the results are given separately :—

| Circumference in inches. | Jamba. | Nana. | Kindali. | Aula. | Kumbia. | Dhamani. | Blackwood. | Teak. | Matti. | Honni. | Hela. | Kharsinga. | Apta. | Kalam. | Hanamanki. | Jammi. | Hanagi. | Moyi. | Bhiwala. | Hasan. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 ... | 28 | ... | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 8 ... | 90 | ... | 8 | ... | 3 | 1 | ... | ... | ... | 1 | 2 | 1 | ... | ... | 1 | 1 | ... | ... | ... | ... | |
| 10 ... | 109 | 3 | 12 | 5 | 4 | ... | 2 | ... | 1 | ... | ... | 1 | ... | 1 | ... | ... | ... | ... | ... | ... | 561 |
| 12 ... | 123 | 9 | 5 | 4 | 2 | 2 | 2 | ... | .. | ... | 1 | 1 | ... | 1 | ... | ... | .. | ... | ... | ... | |
| 14 ... | 97 | 15 | 12 | 7 | 6 | ... | 2 | ... | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | |
| 16 ... | 78 | 14 | 8 | 3 | 3 | ... | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | |
| 18 ... | 64 | 9 | 5 | 3 | 3 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | ... | |
| 20 ... | 53 | 22 | 7 | 3 | 2 | 2 | ... | 1 | 1 | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 | 423 |
| 22 ... | 52 | 13 | 4 | 1 | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | .. | 1 | ... | ... | |
| 24 ... | 43 | 13 | ... | ... | 2 | 2 | ... | ... | ... | 1 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | |
| 26 ... | 18 | 17 | 5 | 1 | ... | 3 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 28 ... | 13 | 8 | 5 | ... | ... | 5 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 30 ... | 4 | 12 | 9 | ... | ... | 4 | 1 | ... | ... | ... | ... | ... | ... | ... | .. | ... | 1 | ... | ... | ... | 150 |
| 32 ... | 2 | 9 | 4 | ... | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 34 ... | 2 | 16 | 5 | ... | ... | .. | ... | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 36 ... | 1 | 10 | 4 | ... | ... | 1 | 1 | 1 | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 38 ... | ... | 5 | 1 | ... | ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... | |
| 40 ... | 1 | 3 | 4 | ... | 1 | ... | ... | ... | ... | ... | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... | 40 |
| 42 ... | ... | 1 | 1 | ... | ... | ... | ... | 2 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 44 .. | ... | ... | .. | ... | ... | 1 | ... | ... | ... | ... | ... | .. | ... | ... | .. | ... | ... | ... | ... | ... | |
| Total ... | 778 | 179 | 94 | 27 | 26 | 25 | 10 | 7 | 7 | 4 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1,174 |

For calculating the volumes, all the trees of from 6—14 in. in circumference have been assumed to be 10 in. in circumference, from 16—24 in. to be 20 inches in circumference, from 26—34 inches to be 30 inches and 36—44 inches to be 40 inches.

*Height of Trees.*

The heights were measured by means of a bamboo pole 25 feet in length; altogether the heights of 75 trees were taken with the following results :—

Average tree of 10 inches in circumference 10 feet in height.
" 20 " " 25 "
" 30 " " 33 "
" 40 " " 38 "

*Calculation of Volume.*

Volume of average tree of 10 inches circumference = 0·55262 cubic feet.
" " 20 " " = 3·10849 "
" " 30 " " = 7·29459 "
" " 40 " " = 13·12473 "

Volume of trees 10 inches in circumference = 561 × 0·55262 = 310·02
" 20 " " = 423 × 3·10849 = 1314·89
" 30 " " = 150 × 7·29459 = 1094·19
" 40 " " = 40 × 13·12473 = 524·99

Total volume = 3244·09 cubic ft.

*Exceptionally large Trees.*

These to the number of 22 gave the following results:—

| | H = height in feet. C = circumference in inches. | Volume c. ft. |
|---|---|---|
| 5 | Kindali = 78C×40H, 78C×36H, 48C×32H, 46C×35H, 46C×30H | = 122·86 |
| 1 | Hela = 103C×40H ... ... ... | = 74·33 |
| 3 | Dhamani = 60C×35H, 46C×36H, 46C×36H ... | = 54·86 |
| 1 | Blackwood = 52C×40H ... ... ... | = 21·23 |
| 2 | Nana = 68C×30H, 68C×20H ... ... ... | = 42·01 |
| 3 | Jamba = 52C×30H, 50C×15H, 48C×30H... ... | = 37·29 |
| 2 | Kermal = 68C×40H, 68C×30H... ... ... | = 58·82 |
| 1 | Apta = 60C×35H ... ... ... ... | = 23·68 |
| 4 | Teak = 66C×40H, 60C×40H, 48C×35H, 48C×35H ... | = 91·50 |
| 22 | Total ... | 526·58 c. ft. |

Of this amount $\frac{2}{3}$ only have been taken as representing ($\frac{2}{3}$ = 351·05) the real volume, for most of the large trees were hollow, decayed, or deformed. Thus the total number of trees on the 2 acres is 1,196, and their total volume is 3595·14.

Results per Acre.

Number of trees = 598, say 600.
Volume = 1797·57 c.ft., say 1,800 c.ft.
Volume stacked = about 2,700 c.ft.
Stack volume is to solid measure as 1 to 0·67.

| | Percentage Composition. | | Percentage Composition. |
|---|---|---|---|
| Jamba ... | = 65·06 | Teak ... | = 0·58 |
| Nana ... | = 14·98 | Matti ... | = 0·58 |
| Aula ... | = 2·25 | Remainder ... | = 1·75 |
| Kindali ... | = 7·86 | Large trees . | = 1·84 |
| Kumbia ... | = 2·18 | | 100·00 |
| Dhamani ... | = 2·08 | | |
| Blackwood ... | = 0·84 | | |

*Experiments to determine age.*

| | Circumference. | Age. | | Circumference. | Age. |
|---|---|---|---|---|---|
| Jamba ... ... | 11 | 24 | Nana ... ... | 34 | 39 |
| | 21 | 35 | | 24 | 35 |
| | 34 | 36 | | 15 | 18 |
| | 19 | 25 | Aula ... ... | 32 | 36 |
| | 22 | 37 | | 16 | 18 |
| | 21 | 32 | Hela ... ... | 17 | 16 |
| | 19 | 36 | | 33 | 30 |
| | 30 | 50 | Dhamani ... | 23 | 25 |
| | 22 | 30 | | 18 | 20 |
| | 12 | 20 | Kumbia ... | 12 | 15 |
| | 26 | 38 | Parewi... ... | 26 | 26 |
| | 9 | 12 | Matti ... ... | 24 | 34 |
| | 21 | 32 | Sawari... ... | 30 | 36 |
| | 22 | 26 | Bâwâ ... ... | 20 | 28 |
| | | | Kindali ... | 19 | 24 |

This gives approximately the following results:—

| | | And the mean annual diameter growth is |
|---|---|---|
| The age of trees of 10 inches circumference is | 15 years ... ... | ·212 |
| „ 20 „ „ | 27 „ ... ... | ... |
| „ 30 „ „ | 36 „ ... ... | ·233 |

*Age of forest (large trees excluded).*

| | | |
|---|---|---|
| Trees of 10 inches circumference | = 561×15 = | 8415 |
| „ 20 „ „ | = 423×27 = | 11421 |
| „ 30 „ „ | = 150×36 = | 5400 |
| „ 40 „ „ | = 40×45 = | 1800 |
| | | 27,036 |

The age of the forest = $\frac{27036}{1174}$ = 23 years.

Average annual increment per acre = $\frac{1797·57}{23}$ = 78 cubic feet solid measure.
= 117 cubic feet stack measurement.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

*Belgaum, 29th September 1894.*

B 1106—18 S.C.

# EXPERIMENTS IN COPPICE-GROWTH.

## A.—Belgaum Division.

### *3.—Periodic growth.*

*Height-growth.*

| Serial Number. | Name of Species. | Age. 5 | | 10 | | 15 | | 20 | | 25 | | 30 | | 35 | | 40 | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total height. Feet. | Mean annual height increment. Feet. | Total height. Feet. | Mean annual height increment. Feet. | Total height. Feet. | Mean annual height increment. Feet. | Total height. Feet. | Mean annual height increment. Feet. | Total height. Feet. | Mean annual height increment. Feet. | Total height. Feet. | Mean annual height increment. Feet. | Total height. Feet. | Mean annual height increment. Feet. | Total height. Feet. | Mean annual height increment. Feet. | |
| 1 | Jámbá ... ... ... | 11·5 | 2·3 | 19·0 | 1·9 | 24·5 | 1·6 | 29·5 | 1·4 | 35·0 | 1·4 | 40·5 | 1·3 | 45·5 | 1·3 | 50 | 1·2 | |
| 2 | Matti ... ... ... | 11·0 | 2·2 | 19 | 1·9 | 25·0 | 1·6 | 30·0 | 1·5 | 35·0 | 1·4 | 40·0 | 1 3 | 45·0 | 1·3 | 50 | 1·2 | |
| 3 | Kindal ... ... ... | 11·5 | 2·3 | 20·5 | 2·0 | 26·5 | 1·8 | 31·5 | 1·5 | 37·5 | 1·5 | 43·0 | 1·4 | 49·0 | 1·4 | 54 | 1·3 | |
| 4 | Náná ... ... ... | 10·5 | 2·1 | 19 | 1·9 | 23 | 1·5 | 27·5 | 1·3 | 31·5 | 1·2 | 34·5 | 1·1 | 37·0 | 1·0 | 39·0 | 1·0 | |

*Diameter-growth.*

| Serial Number. | Name of Species. | Age. 5 | | 10 | | 15 | | 20 | | 25 | | 30 | | 35 | | 40 | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total diameter. Inches. | Mean annual diameter increment. Inches. | Total diameter. Inches. | Mean annual diameter increment. Inches. | Total diameter. Inches. | Mean annual diameter increment. Inches. | Total diameter. Inches. | Mean annual diameter increment. Inches. | Total diameter. Inches. | Mean annual diameter increment. Inches. | Total diameter. Inches. | Mean annual diameter increment. Inches. | Total diameter. Inches. | Mean annual diameter increment. Inches. | Total diameter. Inches. | Mean annual diameter increment. Inches. | |
| 1 | Jámbá ... ... ... | 1·4 | ·28 | 2·8 | ·28 | 3·8 | ·25 | 4·9 | ·24 | 5·9 | ·24 | 6·9 | ·23 | 7·7 | ·22 | 8·3 | ·21 | |
| 2 | Matti ... ... ... | 2·3 | ·46 | 4·1 | ·41 | 5·1 | ·34 | 6·1 | ·30 | 6·9 | ·28 | 7·7 | ·26 | 8·4 | ·24 | 9·0 | ·22 | |
| 3 | Kindal ... ... ... | 1·7 | ·34 | 3·3 | ·33 | 4·3 | ·29 | 5·25 | ·26 | 6·25 | ·25 | 7·25 | ·24 | 8·0 | ·23 | 8·7 | ·22 | |
| 4 | Náná ... ... ... | 2·3 | ·48 | 3·6 | ·36 | 4·6 | ·31 | 5·8 | ·29 | 6·9 | ·28 | 8·0 | ·27 | 9·0 | ·26 | 9·75 | ·24 | |

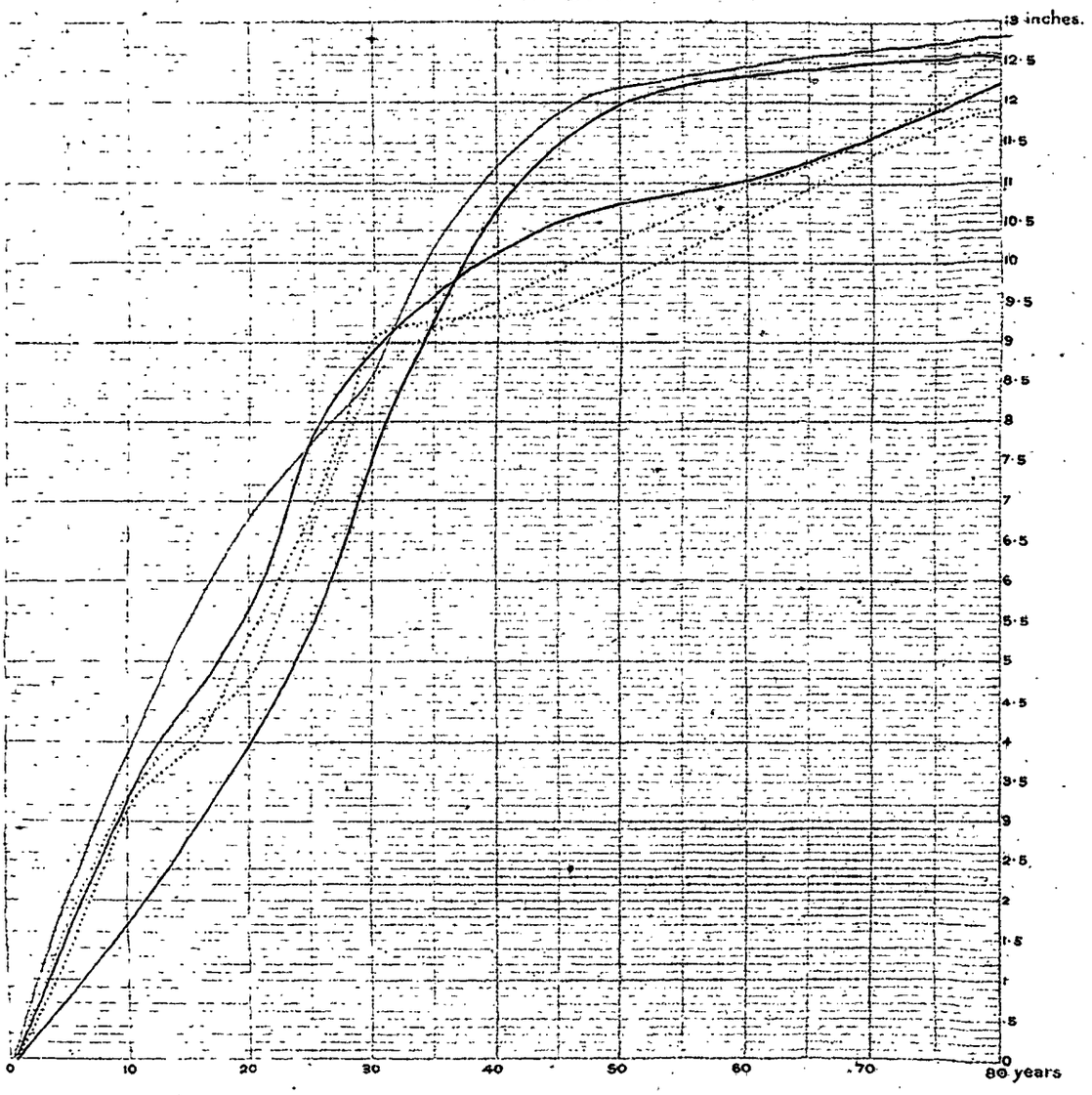
[redacted] Dated Belgaum 26th Octob[redacted]

J. L. L. MacGREGOR,
[redacted] Conservator of Forests, Southern Circle.

# EXPERIMENTS IN COPPICE-GROWTH.

## *DIAMETER-GROWTH OF TEAK*

## IN KOLABA.




B.1106

Alibag
Pen
Panvel
Nagotna
Average for the four Subdivisions

*Drawn & Litho. Govt Photozinco. Office, Poona 1894.*

## (I).—MEAN GROWTH FOR PERIODS OF FIVE YEARS.

### B.—KOLA'BA DIVISION. (MR. MITRA)

*Teak-Coppice.*

| Age. | Diameter at 4 feet. | Mean yearly Diameter. | REMARKS. |
|---|---|---|---|
| | Inches. | Inches. | |
| 5 ... ... | 1·4 | ·28 | These figures are taken from the curves which were based on the measurements of 1,978 trees. The forests are open and the trees are generally crooked and unhealthy-looking. The ground is stony and shallow, the forests being confined to the steep spurs and outliers of the Sahyádri mountains. The teak predominates and frequently occurs in unmixed groups. |
| 10 ... ... | 3·4 | ·34 | |
| 15 ... ... | 4·5 | ·3 | |
| 20 ... ... | 5·7 | ·29 | |
| 25 ... ... | 7·9 | ·32 | |
| 30 ... ... | 8·9 | ·3 | |
| 35 ... ... | 9·6 | ·27 | |
| 40 ... ... | 10·2 | ·26 | |
| 50 ... ... | 10·7 | ·21 | |
| 60 ... ... | 11·1 | ·19 | |
| 70 ... ... | 11·6 | ·17 | |
| 80 ... ... | 12·2 | ·15 | |

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

*Dated Belgaum, 26th October 1894.*

## EXPERIMENTS IN COPPICE-GROWTH.

### C.—Dhárwár Division. (Mr. Woodrow.)

(1). *Diameter-Growth.*

| Serial Number. | Name of Species. | Age. 5 | | 10 | | 15 | | 20 | | 25 | | 30 | | 35 | | 40 | | 45 | | 50 | | 55 | | 60 | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | Diameter at 4 feet. | Mean yearly diameter increment. | |
| | | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | |
| 1 | Teak ... ... | 1·5 | ·30 | 2·6 | ·26 | 3·4 | ·23 | 4·1 | ·20 | 4·7 | ·19 | 5·2 | ·17 | 5·7 | ·16 | 6·1 | ·15 | 6·5 | ·14 | 6·8 | ·14 | 7·1 | ·13 | 7·4 | ·12 | Moderately-to well-stocked forest on laterite or iron-stone soil. Ground undulating, hilly; fires frequent. Elevation about 2,000 feet. Rain-fall 30–40 inches. |
| 2 | Dindal ... ... | 1·7 | ·34 | 2·9 | ·29 | 3·7 | ·25 | 4·4 | ·22 | 4·9 | ·20 | 5·3 | ·18 | 5·7 | ·16 | 6·1 | ·15 | .. | ... | ... | ... | ... | ... | ... | ... | |
| 3 | Matti ... ... | 1·8 | ·36 | 3·0 | ·30 | 4·0 | ·27 | 4·8 | ·24 | 5·4 | ·22 | 5·9 | ·20 | 6·4 | ·18 | 6·9 | ·17 | ... | ... | ... | ... | ... | ... | ... | ... | |
| 4 | Honi ... ... | 2·2 | ·44 | 4·1 | ·41 | 5·7 | ·38 | 6·7 | ·33 | 7·6 | ·30 | 8·3 | ·28 | 8·9 | ·25 | 9·5 | ·24 | 10·0 | ·22 | 10·4 | ·21 | ... | ... | ... | ... | |
| 5 | Dharsal ... ... | 1·9 | ·38 | 3·6 | ·36 | 4·9 | ·33 | 5·9 | ·29 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 6 | Heddi ... ... | 1·7 | ·34 | 3·2 | ·32 | 4·3 | ·29 | 5·3 | ·26 | 6·0 | ·24 | 6·6 | ·22 | 7·2 | ·21 | 7·7 | ·19 | 8·1 | ·18 | 8·5 | ·17 | ... | ... | ... | ... | |
| 7 | Nandi ... ... | 1·5 | ·30 | 3·0 | ·30 | 3·9 | ·26 | 4·7 | ·23 | 5·3 | ·21 | 5·8 | ·19 | 6·25 | ·18 | 6·6 | ·16 | ... | ... | ... | ... | ... | ... | ... | ... | |
| 8 | Blackwood ... | 1·1 | ·22 | 2·1 | ·21 | 3·0 | ·20 | 3·8 | ·19 | 4·4 | ·18 | 5·1 | ·17 | 5·7 | ·16 | 6·2 | ·15 | 6·7 | 15 | 7·1 | ·14 | 7·5 | ·14 | ... | ... | |
| 9 | Godhunshi ... | 2·0 | ·40 | 3·0 | ·30 | 3·8 | ·25 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |

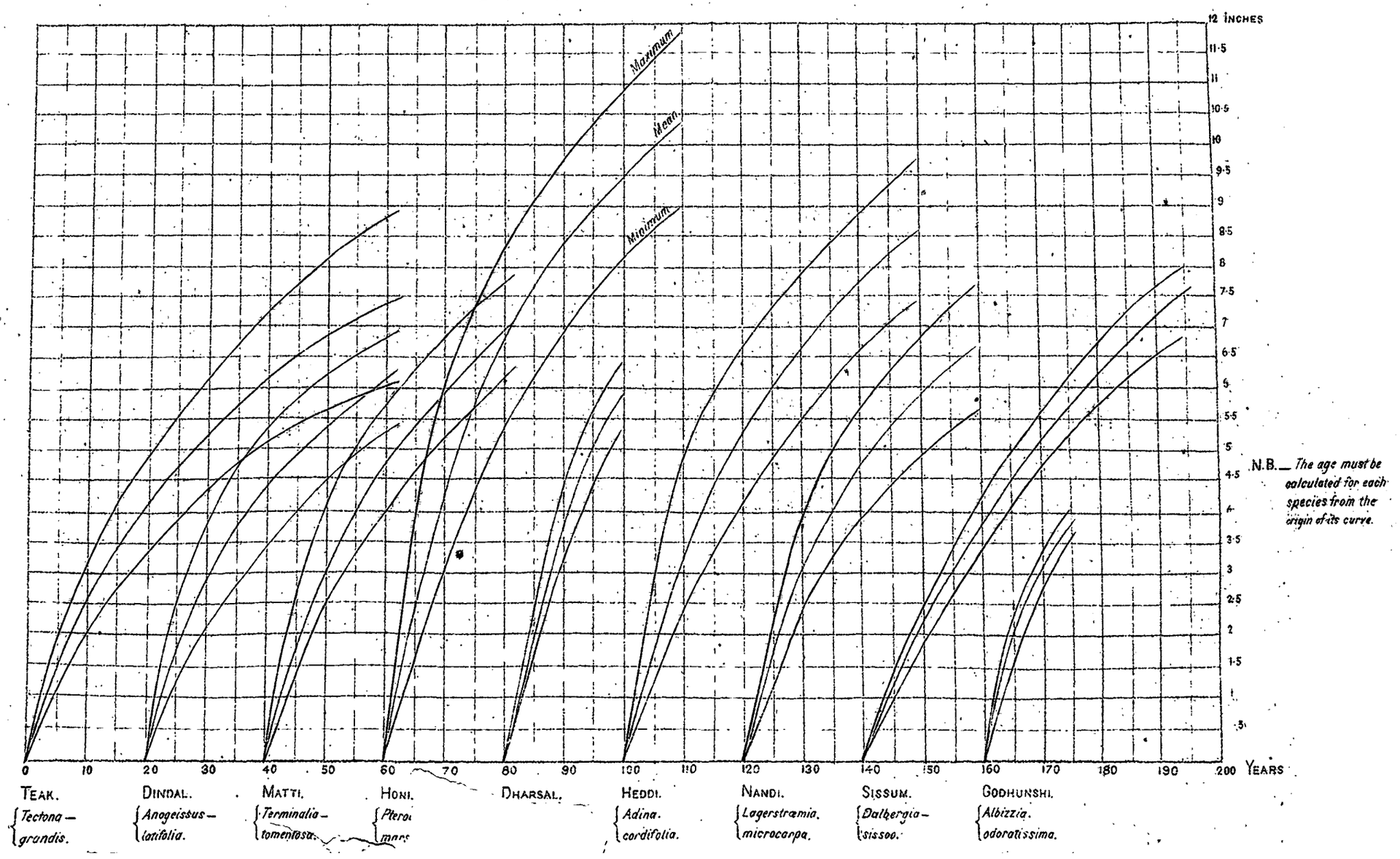
*Belgaum, 26th October 1894.*

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

# EXPERIMENTS IN COPPICE-GROWTH

## *DHÁRWÁR DIVISION.*

### DIAMETER-GROWTH.

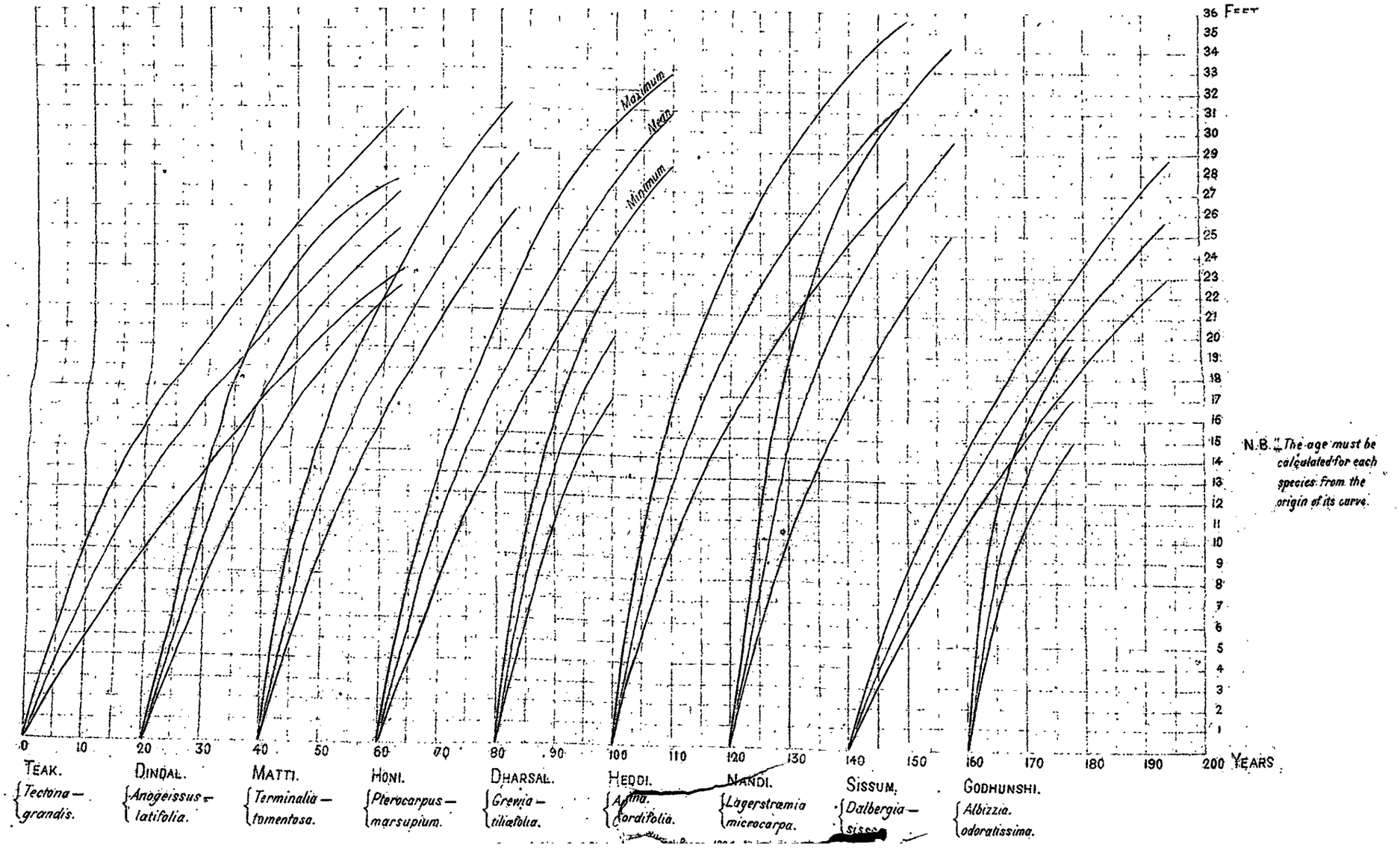



N.B.—*The age must be calculated for each species from the origin of its curve.*

# EXPERIMENTS IN COPPICE-GROWTH

## *DHÁRWÁR DIVISION.*

## HEIGHT-GROWTH.




B. 1106.

# EXPERIMENTS IN COPPICE-GROWTH.

## C.—DHA'RWA'R DIVISION.

### (2). *Height-Growth.*

| Serial Number. | Name of Species. | Age. 5 | | 10 | | 15 | | 20 | | 25 | | 30 | | 35 | | 40 | | 45 | | 50 | | 55 | | 60 | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | Height in feet. | Mean yearly height increment. | |
| | | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | In. | |
| 1 | Teak .. ... | 3·7 | ·74 | 6·8 | ·68 | 9·7 | ·65 | 12·1 | ·60 | 14·1 | ·56 | 16·0 | ·53 | 18·1 | ·52 | 19·8 | ·49 | 21·6 | ·48 | 23·2 | ·46 | 24·8 | ·45 | 26·0 | ·43 | |
| 2 | Dindal ... ... | 5·0 | 1·00 | 9·6 | ·96 | 13·0 | ·87 | 16·6 | ·83 | 19·4 | ·78 | 21·4 | ·71 | 22·8 | ·65 | 24·3 | ·61 | ... | ... | ... | ... | .. | ... | ... | ... | |
| 3 | Matti ... ... | 6·5 | 1·30 | 11·3 | 1·13 | 15·4 | 1·03 | 18·4 | ·92 | 21·0 | ·84 | 23·4 | ·78 | 25·8 | ·74 | 27·8 | ·69 | ... | ... | ... | ... | ... | ... | ... | ... | |
| 4 | Honi ... ... | 5·4 | 1·08 | 10·0 | 1·00 | 13·9 | ·93 | 17·0 | ·85 | 20·4 | ·82 | 22·9 | ·76 | 25·4 | ·73 | 27·4 | ·68 | 29·3 | ·65 | 30·7 | ·61 | ... | ... | ... | ... | |
| 5 | Dharsal ... ... | 7·6 | 1·50 | 13·0 | 1·30 | 16·8 | 1·12 | 19·7 | ·98 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 6 | Heddi ... ... | 7·0 | 1·40 | 12·6 | 1·26 | 16·0 | 1·07 | 19·5 | ·97 | 22·3 | ·89 | 24·7 | ·82 | 26·7 | ·76 | 28·6 | ·71 | 30·3 | ·67 | 31·6 | ·63 | ... | ... | ... | ... | |
| 7 | Nandi ... .. | 7·0 | 1·40 | 14·0 | 1·40 | 18·6 | 1·24 | 21·8 | 1·09 | 24·2 | ·97 | 26·4 | ·88 | 28·5 | ·81 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |
| 8 | Blackwood ... | 3·8 | ·76 | 7·2 | ·72 | 9·9 | ·66 | 12·6 | ·63 | 15·0 | ·60 | 17·0 | ·57 | 19·3 | ·55 | 21·2 | ·53 | 22·8 | ·51 | 24·4 | ·49 | 25·8 | ·47 | ... | ... | |
| 9 | Godhunshi ... | 8·1 | 1·6 | 13·0 | 1·30 | 16·0 | 1·07 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | |

*Belgaum, 26th October 1894.*

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle,

## D.—Central Division of Ka'nara.

*Experiment made by Mr. B. J. Haselden, Acting Deputy Conservator, at Hattikeri on 21st March 1894, to ascertain the ratio that the contents of Solid bears to that of Stacked Firewood, and the weight of the Wood.*

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The experiment was made with wood from the mixed forests, below Ghâts, which consist of well-stocked groups of *Terminalia, Xylia, Lagerstræmia, Albizzia* and minor species usually associated with these. Both density and growth were good, the stems were clean and straight, and the age of the groups was about 40 years.

*1st Experiment,* with green wood of *Terminalia tomentosa, Xylia dolabriformis* and *Lagerstræmia microcarpa;* including bark, stem, and thick branch-wood; spray excluded:—

| | | | |
|---|---|---|---|
| 105 pieces . | Weighed | ... | 5,093 lbs. |
| | Measured stacked | ... | 100 c. feet. |
| | Measured solid | ... | 74·87 c. feet. |

Therefore, one stacked cubic foot weighed 5,093 ÷ 100 = 50·93 cubic feet.

One solid cubic foot weighed 5,093 ÷ 74·87 = 68·02 lbs.

And stack-measurement was to solid measurement as 1 is to ·75.

*2nd Experiment,* with wood cut 15 months before the date of the experiment:—

| | | | |
|---|---|---|---|
| 103 pieces . | Weighed | ... | 3,042 lbs. |
| | Measured stacked | ... | 100 c. feet. |
| | Measured solid | ... | 62·25 c. feet. |

Therefore, the weight of a cubic foot of air-dry wood was 3,042 ÷ 100 = 30·42 lbs. stack-measurement; and 3,042 ÷ 62·25 = 48·87 lbs. solid measurement.

And stack-measurement was to solid measurement as 1 is to ·62.

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The wood on the Coast is sold, generally, when it is more or less green. It is usually measured within a month or two of its being cut. The mean of these two experiments may, therefore, be taken as affording results more in accordance with the conditions. The mean results were:—

| | | | |
|---|---|---|---|
| 208 pieces . | Weighed | ... | 8,135 lbs. |
| | Measured stacked | ... | 200 c. feet. |
| | Measured solid | ... | 137·12 c. feet. |

Therefore, one stacked cubic foot weighed 8,135 ÷ 200 = 40·68 lbs.

Solid wood weighed 8,135 ÷ 137·12 = 59·26 lbs.

And stack-measurement was to solid measurement as 200 is to 137·12; or as 1 is to ·68.

*Dated Belgaum, 26th October 1894.*

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

No. 227 of 1895.

Revenue Department.

*Belgaum, 26th January 1895.*

Forwarded to Government.

2. The year under report covered the ordinary period of twelve months, against an exceptional period of fifteen months immediately preceding. It will be recognised that this renders comparisons difficult and not very satisfactory.

3. The total areas of reserved and protected forest in the whole Circle on the 1st July last were, respectively, 2,471 and 2,901 square miles, against 1,978 and 3,405 square miles on the corresponding date in 1892-93. The table shows 197 square miles of protected forest in the Belgaum district; but, properly speaking, there are now no protected forests in that district, the whole of them having been brought into the reserved class; in the case, however, of the Belgaum, Chikodi, Khánápur, and Parasgad tálukas, the notifications were not issued till after the close of the year.

Paras. 14 to 17.

4. Settlement operations were in progress in Dhárwár and Kánara. Mr. Wingate completed the field-work of 722 square miles in the Haliyál táluka (Kanara); and it is expected that his report will now be ready very shortly. Mr. Knight completed the field-work of 155 square miles in Dhárwár; his reports have since been submitted. Mr. Sheppard completed the field-work of 98 square miles in Kánara, in the Siddápur and Sirsi tálukas; but his reports have not yet been received; the only report received from him was the report for the Kárwár táluka, where the work was completed in 1892-93; it was actually submitted by Mr. Wingate, during Mr. Sheppard's absence on leave. The outturn of Mr. Sheppard's work seems inadequate, as compared with the work done by Messrs. Wingate and Knight. The Conservator of Forests explains, however, that the forests of Siddápur and Sirsi, with which Mr. Sheppard had to deal, are much intersected by cultivation and *betta*-lands, and also are greatly burdened by rights of way; and that consequently they required, acre for acre, comparatively much more time to settle than the compact blocks of the Supa forest, in the Haliyál táluka, in which not only is the garden cultivation very small, but also the rights to be enquired into are less numerous; and he also shows that Mr. Sheppard did a good deal of work in connection with the *betta*-lands.

Paras. 18 to 39.

5. The final report on the allotment of lands for cultivation to the Thákurs of the Khálápur petha and the Karjat táluka in Kolába, called for by Government Resolution No. 196 dated the 7th January 1893, is still awaited. The orders of Government on this office letter No. 2567 dated the 19th June last on the subject of *dalhi* assignments in the other parts of the Kolába district, are also awaited.

6. Paragraphs 30 to 34 show that there remains only an area of about 700 square miles in Kanara, for which field-work has still to be done. In the Conservator's opinion, two more working seasons will suffice, and the work will have been reported upon by November 1896. The settlement of the rest of the Circle is practically complete, except in respect of 11 square miles and 353 acres in Kolába, the report regarding which is delayed pending the settlement of the claim of the Pant Sachiv to certain palm groves in the four villages of Rabgaon, Chikkalgaon, Kondgaon, and Shiloshi.

7. The question of *betta*-lands (*see* the Conservator's paragraph 22) has already been before Government (*see* this office No. 1242 dated the 21st March 1894, and No. 2679 dated the 25th June 1894). The Commissioner agrees with the Conservator that an early decision of Government in the matter will, besides facilitating the settlement work, result in a considerable saving of the time and expense that would be necessary if the re-distribution of *betta* were to be carried out after the Settlement Officer leaves the tálukas.

8. The Imperial survey-party was working in Kanara and Kolába. The work done during the forest years 1892-93 and 1893-94 is given in the subjoined table:— Paras. 40 to 54.

| | 1892-93. | | 1893-94. | |
|---|---|---|---|---|
| | Area. | Cost. | Area. | Cost. |
| *I.—North Kanara.* | Sq. m. | Rs. a. p. | Sq. m. | Rs. a. p. |
| Triangulation 4" ... ... | 600 | 7,057 2 7 | 265 | 4,155 15 5 |
| Traversing 4" ... ... | 300 | 6,589 9 8 | 250 | 3,204 15 0 |
| Detail Survey 4" ... ... | 220 | 1,773 13 4 | 193 | 16,530 1 11 |
| | 1,120 | 15,420 9 7 | 708 | 23,891 0 4 |
| *II.—Kolába.* | | | | |
| Detail Survey 8" scale .... ... | 16 | 3,355 2 8 | 56·98 | 8,972 3 11 |

9. The Conservator makes remarks on the excessive cost incurred on the eight-inch survey in Kolába, pointing out, in paragraph 52, that in 1892-93 it cost more than double what it cost in 1891-92, and that in 1893-94 it cost 57 per cent. more than in 1891-92. In paragraph 64 of his report for 1891-92, the Conservator of the Central Circle explained the differences in cost in the surveys on the sixteen-inch, eight-inch, and four-inch scales, and referred to the small, scattered and broken patches of forests in Kolába as one of the principal causes contributing to the heavier cost; and Government in paragraph 11 of their Resolution No. 4944 dated the 8th July 1893 accepted the explanation as correct. Mr. MacGregor suggests that a four-inch scale would suffice for forest purposes. No details are given, either in Form No. 49 or in the body of the report, as to how much work still remains to be done in the Kolába district. A reference to paragraph 47 of the Conservator's report for the year 1892-93 shows, however, that about 300 square miles have still to be surveyed. The cost is no doubt an important factor. But the Commissioner would deprecate the adoption of the four-inch scale when more than one-third of the work has been completed on the eight-inch scale.

10. Two working plans parties were employed during the year. A revised plan, prepared by Mr. Bell in charge of the Working Plans Party II, for the organisation of the valuable teak forests of the Haliyál táluka, including the Supa petha, was submitted to Government under this office No. 3789 dated the 4th September last. Mr. Haripad Mitra, an extra Assistant Conservator attached to Party No. I, has also lately submitted a similar report for working the forests in the Panvel, Pen and Alibág tálukas and the Nágothna petha; it is now under consideration in this office, and will be forwarded to Government in due course. The cost of the plans completed up to date is, on an average, 13·5 annas per acre for the northern division of Kanara, and 2·6 annas for Kolába. The difference in cost is due to differences in the local peculiarities of the forests, and consequently to differences in the systems adopted. Paras. 55 to 64.

11. The report of the Conservator of Forests, Southern Circle, called for by Government in paragraph 6 of their Resolution No. 5385 dated the 23rd June 1894, explaining why the enumeration and classification system is being tried in the Southern Circle, instead of the equal area system adopted in Thána and elsewhere, was forwarded to Government with this office No. 3789 dated the 4th September last.

12. The expenditure on communications, buildings, &c., has decreased from Rs. 8,621 in 1892-93 to Rs. 5,531 during the year under review. The decrease is due chiefly to the diminished requirements in respect of new wells. In the previous year, seven new wells, costing in the aggregate Rs. 1,690, were sunk in Kanara, while, Paras. 65 to 72.

during the year under review, only one such well was constructed, at a cost of Rs. 196. The Halshi-Nagargalli forest road in the Belgaum district was repaired during the year, at a cost of Rs. 2,447.

Paras. 73 to 123.

13. The total number of breaches of the Forest law committed during the year was 1,600, against 1,989 in 1892-93; they are classified below:—

| Nature of offence. | Dealt with by Magistrates. | Dealt with departmentally, under Section 67. | Not detected. |
|---|---|---|---|
| Injury to forest by fire... ... ... | 9 | 2 | 232 |
| Unauthorized felling of wood ... ... | 512 | 381 | 392 |
| Grazing without permission in closed areas ... | 8 | 1 | 3 |
| Other offences ... ... ... | 36 | 23 | 1 |
| Total ... | 565 | 407 | 628 |

14. The following table shows the result of prosecutions instituted in regard to 581 offences, *i.e.* 565 committed during the year and 16 pending trial at the beginning of the year:—

| District. | 1892-93. | | | 1893-94. | | | Percentage of failures. | |
|---|---|---|---|---|---|---|---|---|
| | Prosecutions. | Convictions. | Acquittals. | Prosecutions. | Convictions. | Acquittals. | 1892-93. | 1893-94. |
| Belgaum ... ... | 146 | 126 | 14 | 32 | 26 | 5 | 9 | 15 |
| Bijapur ... ... | 15 | 14 | 1 | 10 | 10 | ... | 7 | ... |
| Dhárwár ... ... | 29 | 18 | 9 | 19 | 12 | 5 | 31 | 26 |
| Kanara ... ... | 237 | 161 | 63 | 166 | 78 | 82 | 26·5 | 49·4 |
| Kolába ... ... | 138 | 102 | 32 | 291 | 187 | 33 | 24 | 11 |
| Ratnágiri ... ... | 36 | 17 | 18 | 63 | 43 | 18 | 50 | 28 |
| Total ... | 601 | 438 | 137 | 581 | 356 | 143 | 23 | 24 |

15. Except in Kanara and Belgaum, the percentage of failures has fallen in all the districts; and this shows that greater care is now taken in deciding whether the evidence by which the prosecution is to be supported is sufficient to secure a conviction. In Kanara, the rise in the percentage of failures is attributed to the fact that, during the first five months of the year, out of the 66 cases of misappropriation of forest produce from the forests within the five-mile radius of Kárwár, in no less than 53 cases the offenders were let off with a warning; the leniency thus shown, however, was afterwards found to be misplaced, as instead of resulting in a decrease of crime, it had the effect of increasing illicit cutting in the forests; the District Magistrate then pointed out to his subordinates that, unless offenders detected red-handed were adequately punished, no improvement was likely to take place.

16. The following table gives details of the cases dealt with under Section 67 of the Act:—

| District. | 1892-93. | | | | 1893-94. | | | |
|---|---|---|---|---|---|---|---|---|
| | Total number of cases disposed of. | Number of cases commuted. | Number of cases discharged. | Amount of compensation recovered. | Total number of cases disposed of. | Number of cases commuted. | Number of cases discharged. | Amount of compensation recovered. |
| | | | | Rs. | | | | Rs. |
| Belgaum ... ... | 475 | 475 | ... | 580 | 86 | 84 | 2 | 36 |
| Bijápur ... ... | 83 | 83 | ... | 188 | 12 | 12 | ... | 15 |
| Dhárwár ... ... | 37 | 37 | ... | 83 | 35 | 5 | 30 | 1 |
| Kanara ... ... | 41 | 37 | 4 | 245 | 41 | 40 | 1 | 435 |
| Kolába ... ... | 154 | 154 | ... | 871 | 181 | 181 | ... | 618 |
| Ratnágiri ... ... | 126 | 123 | 3 | 612 | 39 | 39 | ... | 71 |
| Total ... | 916 | 909 | 7 | 2,579 | 394 | 361 | 33 | 1,176 |

17. In regard to this table, particularly, it has to be remembered that the year 1892-93 comprised 15 months. Notwithstanding this, there was an increase in two districts. In Kanara, it was due to increased activity on the part of the protective establishment within the five-mile radius of the town of Kárwár. In Kolába, it was the result of unauthorised cultivation in Alibág and Nágothna. On the whole, however, the Divisional Officers appear to have shown exceptional leniency, especially in the Dhárwár and Belgaum Collectorates. In the latter district, 216 cases, in which people were accused of the cutting and removal of firewood for sale, were dismissed by the Divisional Forest Officer and are not included in the above table.

18. The following table shows how the total amount of Rs. 1,176, as compensation on account of the 361 offences, was made up :—

| District. | Number of offences. | Amount levied. |
|---|---|---|
| | | Rs. |
| Belgaum ... ... ... | 84 | 36 |
| Bijápur ... ... ... | 12 | 15 |
| Dhárwár ... ... ... | 5 | 1 |
| Kanara ... ... ... | 40 | 435 |
| Kolaba ... ... ... | 181 | 618 |
| Ratnágiri ... ... ... | 39 | 71 |
| Total ... | 361 | 1,176 |

19. There was only one case in which a fine of Rs. 50 was levied; it was in the northern division of Kanara. The rest of the fines were small sums.

Protection from fire, paras. 101 to 123.

20. The table in paragraph 101 shows the results of attempts to protect the forests from fire. The area attempted increased from 1,238 to 1,320 square miles, while the cost of protection per square mile decreased from Rs. 19·34 to Rs. 15·62; but the percentage of failures has increased from 1·53 to 1·97. The system of reporting fires by post cards is stated to have been working well; and the results were specially satisfactory in Kanara, which represents more than half the area of the Circle,—in the Yellápur range, the villagers, on several occasions, spontaneously came forward and assisted in extinguishing the fires. Most of the fires in Belgaum are stated to have been caused by incendiaries.

21. In paragraph 123 of his report, the Conservator states that the number of fires reported was 488, and that the number of cases in which the offenders were detected was 21. A reference to the 3rd column of Form No. 52

shows, however, that there were in all 243 cases of injury to forest by fire. Out of these, in nine cases the offenders were dealt with by the magistrates; in two cases fines were inflicted departmentally under Section 67; and in no less than 232 cases (136 in Belgaum, 85 in Kanara, 10 in Kolába, and one in Ratnágiri) the offenders remained undetected.

22. The grazing rules were in force throughout the Circle, except in some parts of Kolába. A special report on the working of these rules has been separately called for by Government; and therefore the Commissioner will not enter on this matter now.

Paras. 124 to 130.

23. Of the total area of 5,413 square miles, 731 square miles were closed only to browsers, and 850 square miles to all animals. The rest of the area, 3,832 square miles, was open to all animals, as shown in the following table:—

| Division. | Total area in square miles. | Area open to all animals during the whole year. | Percentage of Column 3 on Column 2. |
|---|---|---|---|
| Belgaum ... ... ... ... | 681 | 117 | 17·1 |
| Bijápur ... ... ... ... | 245 | ..... | ..... |
| Dhárwár ... ... ... ... | 431 | 331 | 76·7 |
| Kanara, N. D. ... ... ... | 1,189 | 998 | 83·9 |
| Kanara, C. D. ... ... ... | 965 | 692 | 71·7 |
| Kanara, S. D. ... ... ... | 1,439 | 1,318 | 91·5 |
| Kolába ... ... ... ... | 443 | 373 | 84·1 |
| Ratnágiri ... ... ... ... | 20 | 3 | 15·0 |
| Total ... | 5,413 | 3,832 | 70·7 |

24. The proportion of forest area open to grazing varies in different localities,—the highest percentage (91·5) being in the southern division of Kanara and the lowest (15) in Ratnágiri. It must, however, be remembered that in the latter district only 20 square miles are under forest.

25. The number of cattle impounded for trespass in forests was 13,592, against 16,749 in the previous year. The decrease seems to be proportionate to the shorter length of the year under report. The only district in which there was an increase, amounting to 753,—is Bijápur; no explanation thereof is given. There was a somewhat large decrease in the Dhárwár district. The Divisional Forest Officer attributes it to the greater willingness of the people to pay the fees; the Conservator ascribes it to inefficient protection; and the Collector thinks that it may be due to some extent to the extra fees leviable in some of the pounds.

26. It is satisfactory to learn that fire-protection of the forests in Kanara has had a marked effect in promoting natural reproduction, by seed, of teak, blackwood, and other superior timber trees. Systematic protection was commenced in 1887; and since then natural reproduction has been gradually and steadily improving. This is one of the most important indirect benefits derived from fire protection. The Conservator states that all that is now wanted, to ensure the adequate regeneration of the large timber forests, is more extensive protection combined with a regular system of improvement-cuttings, but that, in the present weak state of the executive, the latter operation cannot be satisfactorily performed, except for an insignificant area. Artifical reproduction is also being resorted to, *pari passu* with natural reproduction; and, in the central division of Kanara, the most important forest tract in the whole Southern Circle, the number of young trees surviving amounted to 48,910 teak and 36,466 other trees.

Paras. 131 to 137.

27. The following table, extracted from Form No. 57, contrasts the outturn of timber and other forest produce during the year 1893-94 with that of the previous year:—

| Description of Timber and other Forest Produce. | Year. | Quantity. |
|---|---|---|
| Timber in the rough logs ... ... | 1893-94 ... | Cubic feet 334,861 |
| | 1892-93 ... | Do. 326,364 |
| Timber in the rough poles ... ... | 1893-94 ... | Do. 757,744 |
| | 1892-93 .. | Do. 850,204 |
| Sawn or square timber ... ... | 1893-94 ... | Do. 504,634 |
| | 1892-93 ... | Do. 416,433 |
| Miscellaneous ... ... ... ... | 1893-94 ... | Do. 96,465 |
| | 1892-93 ... | Do. 81,876 |
| Fuel ... ... ... ... ... | 1893-94 ... | Do. 7,036,613 |
| | 1892-93 ... | Do. 5,499,725 |
| Sandal wood ... ... ... ... | 1893-94 ... | Khandis 118-4-18 |
| | 1892-93 ... | Do. 76-0-21 |
| Do. ... ... ... ... | 1893-94 ... | Trees, poles, &c. 9,199 |
| | 1892-93 ... | Pieces 53 |
| Do. ... ... ... ... | 1893-94 ... | Do. ... |
| | 1892-93 ... | Trees. 131 |
| Bamboos ... ... ... ... | 1893-94 ... | No. 4,591,141 |
| | 1892-93 ... | Do. 5,642,833 |
| Do. ... ... ... ... | 1893-94 ... | Nil. |
| | 1892-93 ... | On contract No. 100,000 |

28. The increase in the yield of large teak occurs in the central, and that in firewood in the northern, division of Kanara. The quantity of firewood exploited has largely increased during the year under report. The running fuel supplied to the Southern Marátha Railway amounted to 4,254,382 cubic feet, against 3,128,149 cubic feet during the fifteen months of the preceding year, and the lighting fuel to 16,802 cubic feet, against 33,262; and it is reported that the Company is now able to utilise more firewood than the Forest Department can supply. In Kolába, the yield of teak decreased from 658,810 to 478,674 cubic feet; the decrease is partly due to the shorter period of twelve months against fifteen, and partly to a diminution in the quantity fixed for cutting.

Financial results, paras. 191 to 200.

29. The following table compares the receipts and charges for the financial year 1893-94 with those of the year 1892-93 :—

| Year. | Revenue. | Expenditure. | Surplus net Revenue. |
|---|---|---|---|
| | Rs. | Rs. | Rs. |
| 1893-94 ... ... ... | 15,12,407 | 8,39,773 | 6,72,634 |
| 1892-93 ... ... ... | 12,01,085 | 6,74,597 | 5,26,488 |

30. There is a satisfactory increase in the net earnings of the Department. The increase occurs chiefly in the northern and central divisions of Kanara, and in Belgaum and Dhárwár, and is ascribed to a prosperous agricultural year in the Southern Marátha Country and to the consequently greater demand for timber. But, with the increase in the revenue of the Department, the outstanding balances have also risen; the balance due at the end of the financial year was Rs. 2,43,963, and it has now increased to Rs. 3,06,030. This is attributed to the unusually large number of sales of timber which took place during the year, and to the present system of sales followed in Kanara, under which the contractor pays down only 25 per cent. of the purchase-money, and has an indefinite period,—any time, within one year, up to the removal of the wood,—for the payment of the remaining three-fourths. The Conservator states, however, that no other system would answer in Kanara. With a view to reduce the amount of arrears, he has called for two statements from the Divisional Forest Officers,—one showing recoverable, and the other irrecoverable balances.

J. F. FLEET,
Commissioner, in charge Southern Division.

SIND CIRCLE.

No. 2046 of 1894-95.

From

THE ACTING DEPUTY CONSERVATOR OF FORESTS,
SIND CIRCLE.

To

THE SECRETARY TO GOVERNMENT,
REVENUE DEPARTMENT,
BOMBAY.

*Deputy Conservator's Office,*
*Karachi, 25th October 1894.*

Sir,

I have the honour to submit herewith the Annual Administration Report of the Sind Forest Circle for the year 1893-94, together with its subsidiary statements.

I have the honour to be,
Sir,
Your most obedient Servant,
G. M. RYAN,
Acting Deputy Conservator of Forests,
Sind Circle.

Through the Commissioner in Sind.

*Annual Administration Report of the Sind Forest Circle for the year 1893-94.*

## CHAPTER I.

### EXTENSION AND CONSTITUTION OF STATE FORESTS.

Area of the Forests in the Sind Circle.

The subjoined table gives the area of the forests of the Sind Circle as it was on the 1st July 1893, the additions and deductions during the year under report, and the area as it stood on the 30th June 1894 :—

| Name of Division. | Area as it stood on 1st July 1893. | | | | Area added during the year. | | | | Area excluded during the year. | | | | Area is it stood on 30th June 1894. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Reserved. | | Protected. | | Reserved. | | Protected. | | Reserved. | | Protected. | | Reserved. | | Protected. | |
| | Square miles. | Acres. | Square miles. | Acres. | Square miles. | Acres. | Square miles. | Acres. | Square miles. | Acres. | Square miles. | Acres. | Square miles. | Acres. | Square miles. | Acres. |
| Sukkur ... ... ... | 446 | 86 | 1 | 128 | ... | 1074 | ... | ... | ... | ... | ... | ... | 447 | 520 | 1 | 128 |
| Naushahro ... ... | 228 | 635 | 3 | 427 | ... | ... | ... | ... | ... | .. | ... | ... | 228 | 635 | 3 | 427 |
| Hyderabad ... ... | 159 | 497 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 159 | 497 | ... | ... |
| Jerruck ... ... ... | 140 | 111 | ... | 117 | ... | ... | ... | ... | ... | ... | ... | 117 | 140 | 111 | ... | ... |
| Total ... | 975 | 49 | 5 | 32 | ... | 1074 | ... | ... | ... | ... | ... | 117 | 976 | 483 | 4 | 555 |

2. The only addition to the forest area during the year was of 1,074 acres in Deh Malir of the Ghotki Taluka, Sukkur Division, which was notified under Section 19 in Government Resolution No. 2286 of the 29th March 1894.

3. The exclusions amounted to 2 acres from the Gajidero reserved forest, in the Naushahro Division, which was transferred to the Public Works Department, for a bungalow and garden, on the bank of the new feeder of the Western Nara, in accordance with the instructions of the Commissioner, *vide* his No. 4212 of 24th November 1893. As this area has not been disforested under Section 26 it is not included in the above statement.

4. One hundred and seventeen acres of protected forest were given up in the Jerruck Division, to the Revenue Department, for cultivation. This area was always intended for agriculture, and was only converted into protected forest as a temporary measure till the land was required for such a purpose.

Areas awaiting final settlement.

5. The area notified under Section 4 of the Forest Act during the year amounted to 35,169—23 acres. In addition to this there are 33,681—5 acres similarly notified from 1886 to 1893 inclusive, as per Statement A attached, still awaiting final settlement.

6. Proposals for reserving about 30,000 acres of land in the Kashmor Taluka of the Upper Sind Frontier District were submitted, and their notification under Section 4 appeared shortly after the close of the forest year. The Kashmor jungles have for some years past been under the protection of the Forest Department, and they have annually been sources of large supplies of fuel to the railway at Sukkur. Their acquisition to the forest area now will form a most valuable addition to the state forests of the Province.

7. But more land is sadly needed in the Hyderabad District for forests. The consumption of fuel at Kotri, both for the railway and distillery and other works, which has always been in excess of the supply available from the forest areas, is going up by leaps and bounds. So valuable is firewood at Kotri now, in consequence of scarcity there, that during the year some locomotive fuel, which was rejected by the North-Western Railway as unfit for their boilers, was bought by the Kotri Distillery for Rs. 75 per 1,000 cubic feet, and this value will be adequately understood when good locomotive fuel is purchased by the railway from the Forest Department at Rs. 44 per 1,000 cubic feet. The case may be exceptional, but Rs. 60 per 1,000 cubic feet as the price of a stack

of wood there of 1,000 cubic feet (equal to 250 Maunds) is not uncommon. Suffice it to say that the outcry at Kotri for fuel is greater than at any other place in the Province and it is very desirable, therefore, that the existing forest area in that region should be considerably increased. The Divisional Forest Officer, Hyderabad, after entering minutely into figures estimates that he needs 40,000 acres more land than what has already been added or will be added by the Forest Settlement Officer, Mr. Barrow. It may be impossible to acquire so much, but wherever any waste land exists, its acquisition should, it is thought, only be abandoned on the strongest grounds possible.

Action of the river.

8. The following statement shows approximately the action of the river on the forest frontages during the year under report:—

| Division. | Area lost. | Area gained. | Amount spent in clearing eroding banks. | Amount realised by sale of erosion timber. | Value of material in hand. | Remarks. |
|---|---|---|---|---|---|---|
| | A. G. | A. G. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Sukkur ... | 3,074 0 | 6,969 0 | 171 10 0 | 693 6 5 | 175 5 0 | |
| Naushahro ... | 2,090 0 | 3,600 0 | 2,397 12 2 | 4,078 5 0 | 74 0 0 | |
| Hyderabad ... | 792 0 | 730 0 | 350 0 0 | 511 0 0 | ... | |
| Jerruck ... | 725 0 | 504 0 | 30 15 0 | ... | 45 0 0 | |
| Total ... | 6,681 0 | 11,803 0 | 2,950 5 2 | 5,282 11 5 | 294 5 0 | |

More Surveyors required for Sind in order to estimate accurately the constant fluctuations in the riverain areas.

9. The area gained, as will be seen, is in excess of that lost by 5,122 acres; but on these figures very little reliance can be placed for they are the estimates of Range Forest Officers on Rs. 20 and 30 per mensem, who, as a rule, are ignorant of survey work and, moreover, have such a great deal to do in other ways that no time can be devoted by them for this particular duty. Such a constant fluctuation in the area of the riverain forests takes place owing to the eccentricities of the river, and the changes are so extensive and important that, unless some one is especially employed with a knowledge of surveying to measure the fluctuations accurately and promptly, the figures given each year in the above statement, and in the last column of the statement in para. 1, will never be of any value. For this reason a surveyor, it is thought, should be attached to each Divisional Forest Officer: the work of measurement could then be done and plotted by him and checked by the Divisional Forest Officer himself, as was done last year in the Jerruck Division, *vide* para. 4 of the Administration Report for 1892-93. Under such circumstances only may accurate figures be expected, and it is earnestly hoped Government will see the necessity of sanctioning such establishment when application for the entertainment of it is made.

10. There is but one surveyor in Sind, and he has been assisting the Forest Settlement Officer in preliminary demarcation of some of the new lands that are being acquired in addition to performing his other duties; and Forest settlement work in fact had a prior claim on his time: one man, however, it is found, is not enough for the whole Province under ordinary circumstances where in addition to the measurement of the new kachas, frequent and numerous boundary disputes are taking place, and where a great many new maps have constantly to be drawn up.

11. The figures quoted in Chapter I, para. 1, of last year's report as the area of the forest on the 30th June 1893, are, it is feared, from the want of accurate yearly records for these reasons, purely mythical. For instance, the Shah Belo, which stands on the records as 13,433 acres is now only about 1,500 acres in extent really, the remainder of the forest being on the other side of the river; but a large portion of the piece opposite has been acquired by the Revenue Department, because it was land fit for cultivation. The portions taken from, and the portions left to the Forest Department on the opposite bank, having never been accurately surveyed, the actual forest area of Shah Belo at

present in consequence is only very approximately quoted. This is only one instance of the many that are occurring.

Effects of embanking the river.

12. The areas gained will not be useful for probably eight or ten years, while the area eroded consists in many instances of good old established forests, and this unfair exchange is likely to continue for a number of years, owing to the results of the bund system; and this is said without in the least degree wishing to cast any reflection on the officers of the Public Works Department, who, in their present policy, are actuated, no doubt, by what is considered in their opinion best in the interests of the State. But from observations made from time to time all along both banks of the Indus it seems that to the erection of bunds closely hemming in the lateral overflow of the river in many places must be attributed in a great measure the extensive erosion of canopied Forests that is annually taking place. Before the advent of bunds the natural course of things was for high canopied forests to form, and for the lands on both banks to get gradually more and more firm The tendency of the stream now is to undo all this. The Bangar lands in the Punjab are strong evidence of the fact, how even unforested alluvial banks last and become perfectly firm under natural conditions. Judging from results in Sind, all the old forests are vanishing and are being replaced by new kachas, which, owing to the rapid play the river has from bank to bank never last very long. Embankments, therefore, according to observation seem to provoke erosion: but this is not mentioned as an argument to abolish embankments; from a politic and economic point of view, and for the general health and prosperity of the Province they are in many places an absolute necessity. The extensive erosion, however, which takes place might, it is thought, be to a certain degree mitigated were they thrown further back. The reasons for such a conclusion, and whether or not this could be adopted advantageously to the State are too controversial and are too lengthy to be stated here, and moreover do not come within the scope of an annual report, and apologies are offered for having stated so much; but suffice it to say that, if throwing the bunds further back did not mitigate the evil most of the forests now cut off from the river would be brought *within the sphere of its natural lateral* overflow, a factor of supreme importance, *bearing in view the great value of* forests in Sind politico-economically and financially. *In a report (No. 1631 of* the 5th September 1894) to the *Commissioner in Sind recently it was pointed* out what a high percentage of profit forests even now, as some stand cut from the river, yield on the capital outlay as compared with results in the Irrigation Department. There the profit on capital outlay is 11·71, *vide* para. 33 of Review on the Irrigation Report for 1892-93, while for the past 22 years the percentage of profit on capital outlay in the Forest Department in Sind is 42·5 per cent.

Suggestion to throw the bunds further back as opportunities occur.

13. No change can, of course, be made in the present position of the embankments merely for the forest benefit it is true, but in all future works and where opportunities occur no objection, I is hoped, will be taken to remove them further back inland. One forest (Mohro Mari) of 11,900 acres in the Sukkur Division, for instance, which is not very far from the river would be especially benefitted by such a policy. It is entirely cut off from the river now by the Sukkur-Begari Bund, and only received water during the current inundation because of the breach in the bund.

14. It is not known how far kharif cultivation, and the health of the surrounding population would be affected by an alteration in the bund alignment three or four miles inland here, but from the demands for rabi cultivation in consequence of the breach in this bund inside this forest this year very little, if any, loss of revenue, it is thought, would follow outside forest limits on account of loss of kharif: in fact gain probably would result, and the important feature is, that about 8 annas per acre, net profit, in addition would accrue to the State from a large area of about 11,000 acres of land which now brings in scarcely anything. An opportunity is now offered of considering the various issues at stake here, and of making a new alignment, if possible, near Mahro Mari because as stated, the Sukkur-Begari Bund close to that place breached

this year, and instead of repairing that breach it might be possible to erect a new bund further inland, and so convert the Mohra Mari Forest, now cut off from the river, into a riverain reserve. The Superintending Engineer will be communicated with on the subject.

Commissioner in Sind's Circular regarding kacha disputes.

15. An important concession, which although it was made just after the close of the forest year, must not be omitted from mention in this report, and many acknowledgements are due to Mr. James for it, and that is, the Commissioner's Circular No. 3,524 of the 31st August 1894, on kacha disputes, in which he has laid down (para. 3) that no kacha land thrown up in front of and adjoining a forest should be given except to the Forest Department. Under previous instructions Collectors had it in their power to retain for cultivation any portion of land thrown up admittedly in front of a forest. It may be interesting to note that Mr. Baden-Powell has expressed an opinion in the pages of the Indian Forester Magazine on the subject of alluvion and diluvion which is in exact accordance with Mr. James' present circular order, and which is as follows :—

> "That the ordinary and well known rule of law is that an accretion or accessory follows the principal. If a tree is mine so (in the absence of express arrangements otherwise) is the fruit, and so will a cow and its calf on exactly the same principle; a gradual accretion of mud which in time hardens on to my frontier and increases my area is in general an accessory."

Boundary paths, etc.

16. One of the main duties of the Divisional Forest Officer when he visits a forest is to see that its boundary paths are kept clear. A ten feet ride is cut round the forest and at distances varying from 30 to 100 yards prominent conical shaped earthen mounds are built with poles fixed at the apex. These boundary marks have to be annually repaired, and rebuilt especially in the kachas where the floods are so heavy, and where, if not inspected and adjusted after the fall of the river are very difficult to find owing to the vegetation that springs up around them, and which conceals them from view; and they easily become permanently effaced in consequence. Revenue stones in the more packa areas even are very difficult to trace at times for this reason. Unless yearly inspected, therefore, boundaries between various properties soon get effaced in Sind.

## CHAPTER II.

### Management of State Forests.

#### *Regulation of Management.*

Working plan and its difficulties.

17. Although every endeavour was made to adhere to the working plan as laid down in the Annual Report for 1891-92, it cannot be said that success has attended results to the letter. Conditions in Sind are very different to what they are in other parts of India, where the forests depend on a rainfall, and where the lands, after being once demarcated remain in that condition permanently, only to be slightly altered perhaps by a revision survey, and where a forest after being sub-divided into a certain number of *coupes* can be worked in rotation accordingly. The river in Sind with its vagaries upsets all calculation. It is found next to impossible to force the whole of the working plan system as originally stated (*vide* para. 14 of Sind Administration Report for 1891-92) into the symmetry of the most perfect proportions. A forest may be on the immediate river-side one season, or may have a suitable bunder attached to it for the loading of boats close by and for two or three seasons: afterwards, perhaps, it may become entirely unexploitable, because the river has probably retired and left an extensive shoal in front of it. The exploitation of this forest, therefore, has for a season or two under the circumstances to be abandoned and the working plan calculations are at once upset.

18. Labour, again, is another factor to be reckoned with, and it is so inadequate in some places that it has been found practically impossible to clear $\frac{1}{12}$th of the forest in the time allotted (*viz.*, seven months) while in other places the areas to be exploited are, perhaps, too distant from the Railway line or river side, and remain untouched on account of heavy expenditure of extraction of material. The difficulties and obstacles of this nature are enormous; but for all that a very great advance has been made in recent years on the old system of working, and the great feature about the present departmental plan is that, wherever there has been clean cutting in one season, that area is sown and closed for reproduction the next, and each season selected compartments only are exploited, and efforts are concentrated on those localities. The system may be said to be an admixture of the jardinage, group, and other systems combined; and although this may seem anomalous, force of circumstances render such a condition of things necessary. There are canopied babul forests where the jardinage system can be and is put into operation, and there is some scrub kandi jungle where scarcely any timber at all is to be found and which can be clean cut and closed.

Reasons for the present formation of the coupes.

19. The peculiar character and situation of the Sind Forests have rendered it necessary to subdivide them into squares of 160 acres each, which are used as coupes, but the coupes are not suitable for the efficient carrying out of a working plan. The system of squares was adopted during the tenure of office of Mr. Hexton's predecessor, and it was introduced mainly to facilitate the estimate of, and noting on the forest maps, the extent of erosion and accretion in the various divisions; a plan which, it may be interesting to observe in passing, was adopted by King Seostris in Egypt more than 2,000 years ago in connection with the measurement of land on the banks of the Nile. The cultivated lands in Egypt on the riverside were subdivided into quadrangles, and each season the erosion or accretion was measured by surveyors and assessment recovered accordingly. In Sind, as previously stated, Range Forest Officers have so much to do that this measurement is often entirely neglected, and as figures are necessary for insertion in their reports the estimates of gains especially are invariably given by guess work.

Change in the size of the coupes.

20. The drawbacks to the system in Sind or quadrangles is that, the coupes formed in certain localities are necessarily of unequal size, and often 160 acres is too large an area in a particular forest for the year's operations. To remedy this it has been found necessary in some of the divisions to sub-divide the squares of 160 acres into four parts of 40 acres each, and although this is a tedious operation it must be done. Erecting cairns or other marks defining the limits of subdivisions of a 160 acre quadrangle would in the majority of instances be useless, as the growth is so very dense that a passage through is the only means of defining it. But even with these smaller coupes difficulties in addition to those explained in paras. 17 and 18 arise. For instance, charcoal making in a coupe already exploited for firewood cannot be carried on because probably of huge cracks or fissures in the soil, caused by its expansion owing to excessive moisture and subsequent contraction; or erosion in one part of a forest necessitates suspension of work in the coupe originally selected to save the valuable timber exposed to erosion from being washed away. The difficulties and drawbacks in fact to an effective carrying out of a strict working plan in forests that have to be worked for fuel and charcoal especially, even when the coupes are smaller are considerable and they would remain so possibly even under any altered plans.

## II.—Working of the year.

### *Rides or Communications.*

21. The following statements show the progress made in the work of sub-dividing the forests by rides or communications :—

Cutting and cost of rides.

| Division. | No. of miles. | Total cost. | Remarks. |
|---|---|---|---|
| | | Rs. a. p. | |
| Sukkur ... ... | 19 | 157 0 0 | |
| Naushahro ... ... | 18 | 205 0 0 | |
| Hyderabad ... ... | 20 | 421 0 0 | |
| Jerruck ... ... | 15 | 277 0 0 | |
| Total ... | 72 | 1,060 0 0 | |

| Division. | Area cut up into compartments up to 30th June 1893. | | Area cut up during 1893-94. | | Total area cut up into compartments. | | Area still remaining to be cut up. |
|---|---|---|---|---|---|---|---|
| | Acres. | Length in miles of rides of 20 feet wide. | Acres. | Length in miles 20 feet wide. | Acres. | Length in miles 20 feet wide. | Acres. |
| Sukkur... ... ... ... | 200,824 | 1,254 | 2,056 | 19 | 202,880 | 1,273 | 83,720 |
| Naushahro ... ... ... | 83,084 | 518 | 2,880 | 18 | 85,964 | 536 | 60,589 |
| Hyderabad ... ... ... | 96,607 | 491 | 2,000 | 20 | 98,607 | 511 | 3,447 |
| Jerruck ... ... ... | 93,473 | 533 | 2,405 | 15 | 95,878 | 548 | 1,216 |
| Total .. | 473,988 | 2,796 | 9,341 | 72 | 483,329 | 2,868 | 148,972 |

22. The rides are perfectly straight and run parallel from the river bank to the boundary of the forest inland and parallel with the course of the river. At each half mile they cross one another at right angles, and in this way squares of 160 acres each are formed: in some cases the four sides of such a figure, especially on the river side, remain incomplete, but additions are not unfrequently being made to a forest, so, if the accretion be sufficiently extensive the rides in every direction are extended on to the kacha, and the additional squares or portions of squares so formed enable the accretion to be estimated with accuracy. In like manner, if a forest is eroded, the area of the portion of a quadrangle eroded can be seen at a glance from the map, and estimated accordingly.

23. There are difficulties, however, in carrying out this to the letter: the time of Range Forest Officers is so much occupied in superintending felling, carting and boating operations, and collecting the grazing revenue that they cannot be spared to direct the ride cutting operations. Such work requires a knowledge of the use of the cross staff and chain, moreover, and forest guards are, as a rule, too ignorant for it. Retired measurers from the Survey Department, usually on 8 annas a day, are entertained, and their work is personally checked by the Divisional Forest Officer. Their object is to dawdle over their duties in order to prolong them over the season, and if a Divisional Forest Officer is not careful, cutting a mile will often cost Rs. 30, whereas its actual cost, according to experiments made by officers on the controlling staff, is less than half; but the drawback is, if expenditure is cut down, the measurers throw up their appointments and ride cutting work is for the time suspended. It is because of the check that was placed on the measurers in this way and consequent difficulty to obtain men to replace those who left, that less work is shown than the year before.

24. The rides are usually from 15 to 30 feet wide, and are extensively used for the traffic of carts and camels to and from ferries, and they of course form the boundaries of different blocks and coupes, and are used as fire traces, but they also form roads of communication, and it is for this reason that particulars regarding them are introduced under this chapter for the first time. Without these rides some of the riverain localities would be one dense impenetrable mass impossible of inspection and probably the home of outlaws. The opening out of the Sind Forests in this manner has no doubt tended to reduce crime and expel such characters from the Province who found the forests good harbours of refuge formerly. Doubtless bad characters and especially cattle-lifters still exist in some of them, but they are kept more under surveillance by being obliged to conform to rules of residence in the forest, one of which is that they shall only build their huts on or close to the rides on the banks of dhands and jheels.

*Buildings.*

Buildings.

25. In the Naushahro Division a house was erected for the Range Forest Officer, Larkana, in the Larkana Depôt, at a cost of Rs. 142, and other minor repairs to the Larkana Depôt itself and Garhi Yasin Ghat, amounted to Rs. 25. The erection of a wall round the Hyderabad Depôt and sheds for storing charcoal therein cost Rs. 991-5-9. No expenditure is shown under "Buildings" in the Sukkur and Jerruck Divisions.

26. It is found useless to erect expensive houses for Range Forest Officers because the embankments are never permanently secure and may at any time be breached and the buildings consequently much damaged or destroyed. In Upper Sind the large District bungalow at Aliwahan, for instance, was carried away by the river the year before last, although it was erected there originally in the belief of its certain immunity from the action of the river; showing how unsafe it is to erect expensive buildings.

27. In Lower Sind (Shahbander District) Range Forest Officers live in temporary "landhis" costing but a few rupees to erect. Although bunds exist in this part of the country they almost yearly breach, and the country around is flooded. One Range Forest Officer was driven from his temporary hut in the Mulchand Range to Jerruck on the opposite shore in consequence of floods during the year. Another, the Range Forest Officer, Shahbunder, while doing his office work lived in hourly peril of having his hut and office records washed away by floods. The bund behind which his hut was erected eventually burst and he had to take refuge on top of it, preserving his records as best as he could.

*General Protection and Breaches of Forest Law.*

Cases tried by Magistrates.

28. The following statement shows the number of cases tried by Magistrates during the year as compared with the previous year :—

| Divisions. | Number of cases taken before Magistrates. | | Number of convictions. | |
|---|---|---|---|---|
| | 1892-93. 15 months. | 1893-94. 12 months. | 1892-93. 15 months. | 1893-94. 12 months. |
| Sukkur ... ... ... ... | 18 | 12 | 7 | 5 |
| Naushahro ... ... ... ... | 13 | 20 | 7 | 9 |
| Hyderabad ... ... ... ... | 15 | 13 | 10 | 11 |
| Jerruck ... ... ... ... | 4 | 3 | 1 | ... |
| Total ... | 50 | 48 | 25 | 25 |

29. A slight decrease (2 cases) in favour of the year under report is due to the difference in periods comprised in the two forest years. The failure to obtain convictions in Jerruck is reported to be due to witnesses for the prosecution having been tampered with and having retracted before the Magistrates the statements made at the preliminary enquiry.

30. The only serious case was one in the Hyderabad Division which occurred last year and which was decided in the year under report, where the offender was fined Rs. 100 for theft of timber.

Cases compounded under Section 67.

31. The number of cases compounded under Section 67 of the Indian Forest Act compared with 1892-93 is as follows :—

| Divisions. | Illicit grazing. | | Theft. | | Other offences. | | Compensation. | |
|---|---|---|---|---|---|---|---|---|
| | 1892-93 15 months. | 1893-94 12 months. | 1892-93 15 months. | 1893-94 12 months. | 1892-93 15 months. | 1893-94 12 months. | 1892-93 15 months. | 1893-94 12 months. |
| Sukkur ... ... | 1,199 | *... | 175 | 23 | 1 | ... | 1,637 | 44 |
| Naushahro ... ... | 163 | ... | 35 | 60 | 19 | ... | 263 | 153 |
| Hyderabad ... ... | 213 | ... | 101 | 83 | ... | ... | 632 | 323 |
| Jerruck ... ... | 456 | ... | 34 | 4 | 1 | 1 | 553 | 8 |
| Total ... | 2,061 | ... | 345 | 170 | 21 | 1 | 3,085 | 528 |

32. The figures for 1892-93 are for 15 months, and even if this be taken into consideration a decrease under each head for 1893-94 will still be visible, which may be said to be satisfactory in that, it shows that the population in and around the forests are being treated with consideration and forbearance, and Forest Administration is beginning to be felt less irksome.

33. The total amount accepted as compensation up to Re. 1 and upwards is Rs. 528, details of which will be found in Statement B.

34. The number of cattle impounded in the open and closed forests is given below. The total is 21,671 as against 25,857 during the previous year, *viz.*, fifteen months :—

| Divisions. | Number of cattle impounded in | | Total. |
|---|---|---|---|
| | Open forests. | Closed forests. | |
| Sukkur ... ... ... ... ... | 3,263 | 2,852 | 6,115 |
| Naushahro ... ... ... ... | 2,010 | 4,111 | 6,121 |
| Hyderabad ... ... ... ... | 1,449 | 4,687 | 6,136 |
| Jerruck ... ... ... ... ... | 820 | 2,479 | 3,299 |
| Total ... | 7,542 | 14,129 | 21,671 |

Fires.

35. The following table is a comparative statement of fires for 1892-93 and 1893-94, which shows an increase in the number and the area burnt over the previous year :—

| Divisions. | Number of fires. | | Area burnt. | |
|---|---|---|---|---|
| | 1892-93. | 1893-94. | 1892-93. | 1893-94. |
| Sukkur ... ... .. ... | 38 | 79 | 1,273 | 3,727 |
| Naushahro ... ... ... ... | 6 | 3 | 282 | 109 |
| Hyderabad ... ... ... ... | 2 | 9 | 90 | 516 |
| Jerruck ... ... ... ... | 7 | 16 | 594 | 3,457 |
| Total ... | 53 | 107 | 2,239 | 7,809 |

* The figures for 1893-94 will be found in Statement D attached.

36. Fires commenced in March and continued up to the rise of the river which took place in June, and they were most prevalent in the extreme northern and southern divisions in localities where the floods swept through a forest and were not controlled by bunds, such as in the Rohri Sub-division of the Shikarpur District, and where the bunds breached, such as in Shahbunder District or delta region of the Karachi Collectorate, causing a superabundance of grass both in and outside forest limits. After a good inundation an increase in the number of fires may nearly always be expected.

Reasons for burning the grass.

37. A couple of months or so before the inundation, when the country around is parched up, and when the grass becomes rank and as dry as tinder, the people set fire to the jungles in order to procure fresh and succulent shoots, which always spring up after a fire, for their animals. Cases of fires arising out of gross neglect also in a forest are not unfrequent where the people, in order to clear the jungle from their own fields which has grown up since the previous inundation season owing to breaches in bunds or canal banks, have set fire to such jungle without any thought of the consequences. Although each forest is bounded by a clear path 10 to 20 feet wide, the fires leap over these with consummate ease, and once in a forest they crackle and rush on with lightning-like speed, akin to the great prairie fires in America.

Reason for forest incendiaries being undetected.

38. No offences under this head were detected, except one, in the Hyderabad Division, which remained undisposed of at the close of the year; and it is almost impossible in a country like Sind to capture offenders because the landscape is so flat, and the jungles so very dense, that cover for concealment is afforded to offenders. There are so many exists also from a forest. In fact, a forest which usually suffers from fires, forms an island in a sea of cultivation, dotted around with villages, so the only method of capturing incendiaries would be to surround the area with Forest Guards (a practically impossible plan with the present small protective staff) as soon as smoke was seen issuing from a forest; and even then it would probably be too late for by the time a cordon were formed (if such an one could be) round 10,000 acres, the miscreant would be far away.

39. During the year under report men were met with burning the jungles in their fields and could only be cautioned. In one case the Divisional Forest Officer, Jerruck, chanced to come upon a man burning the grass near Ranta in his own field adjacent to a forest, a large portion of which had *recently* been burnt, and although the circumstantial evidence of guilt was strong, still the case, it was found, would not have held good in a court of law, and no steps were, therefore, taken against the individual.

After consultation with the Collector and Assistant Collector, 500 acres of land, burnt last year, were closed during the year under report against grazing in the Jerruck Division.

40. It has been observed that, wherever the floods are banked up, often standing for three weeks or a month, with glassy stillness against the embankments, the long "sar" and "dabh" grass in the forests dies out naturally, and a complete change has thereby come over the character of some of the forests in such localities: a change which is one of the good results arising from the present bund policy.

*Improvement of Forest growth.*

Natural reproduction.

41. Natural reproduction in Sind, is, perhaps, attended with more successful results than in many other parts of India. Here there are jungles ready made to hand, and in spite of all the heavy grazing of camels, goats and other cattle, vegetation declines in many places to be suppressed. These remarks apply of course to the areas within the lateral overflow of the river, because, wherever the floods are

kept out by bunds successfully, barrenness and decay present a woeful picture, and it is no wonder that travellers through Sind, journeying by rail, carry away a wrong impression of the country, believing it all to be as dry as dust and without any forest-clad tracts. The soil is so extremely fertile, especially in the riverain areas, that as soon as the floods subside the country is clothed with countless thousands of tamarisk (*Tamarix Gallica* and *Dioica*) seedlings, and it is not only on the kachas or shoals that these seedlings are seen; almost everywhere, where the soil is not pure sand, are they visible, and so rapid is their growth that the greatest difficulty is often experienced in keeping them down in places, especially rides and forest boundary lines, which are required to be kept open. One of the main duties of the Forest Guard, after the fall of the floods, is to go out with his axe and cut down the young tamarisk on the rides, &c., in order to keep them clear for traffic. If this annual operation of keeping them open were not rigidly enforced, the forests especially of tamarisk, in three or four years would probably bear the aspect of never having been subdivided at all by paths; and it is very necessary to maintain these paths which are largely used for inspection purposes, as well as for general traffic.

42. Babul (*Acacia Arabica*) is found growing gregariously in only a part of one forest in Upper Sind. In Central and Lower Sind there are unmixed canopied babul forests on the river side with trees of 6 and 8 feet girth, all formed by natural means before the bunds as at present constituted existed. All that is done now when exploiting these areas is to fence them immediately after being cleared, and after the inundation a dense crop of seedlings covers the ground without any artificial aid. These seeds are distributed by wind, flood and animals.

43. By protecting the area from the depredations, especially of goats and camels, in 8 or 10 seasons the crop is ready for exploitation again, and probably 500 cubic feet of saleable wood per acre is available from it. Measurements taken of babul in the Province show that, in a little less than five years, this tree under favourable conditions of soil and moisture attains a girth of $1\frac{1}{2}$ feet at 4 feet from the ground. In no other part of India probably are such favourable conditions apparent, and it is mainly because of these satisfactory conditions that the Sind forests are probably the most valuable in India. It might seem, therefore, that sylviculture is rendered very easy under such circumstances but the fact is, that the country is infested with large flocks of goats and hundreds of camels, and the greatest difficulty possible is experienced in protecting the fenced-in areas although large hedges 6 to 8 feet high are constructed to exclude the animals. The babul in consequence of the tremendous spur owing to favourable conditions of soil and moisture, would, no doubt, still grow if left unprotected, but it would remain in the form of a scrub, and very few plants would probably go beyond that stage. Fortunately in the fresh alluvial lands, goat and camels do not, as a rule, penetrate to a very large extent: camels are afraid to go because of their liability to sink in the "gup" or soft mud of which the kacha land consists. They restrict themselves chiefly to the forests of older formation, and in consequence of this, on the new kacha lands, young babul may be seen forcing itself up ultimately to form canopied forests if not eroded by the river.

44. Bahan or Poplar, (*Populus Euphratica*) which commands a very good price in the market, in spite of its crooked bole, is entirely grown under natural conditions. In several localities in Upper and Central Sind it grows abundantly on the fresh alluvial formations, and in less than a dozen years suitable poles for dwellings are available, the value of which is Rs. 30 to Rs. 40 per 100.

45. Attempts to reproduce the tree artificially from seed have been tried in the more permanent lands but without success, and such attempts, it is thought, will never be fruitful because the seed is extremely light and delicate, and like thistle-down and willow-wool is carried away in the breeze, and is only capable of germination in localities where the soil is of extremely soft consistency.

46. Attempts to reproduce the tree from cuttings have also been tried, but without success. All that can be done is to fence in the areas self-clothed

with young poplar, when the soil has sufficiently stiffened, and to protect seedlings from the depredations of buffaloes, bullocks and cows, who are very fond of the new and succulent young poplar leaves. To the damage caused to the poplar in its early stages by these animals, may possibly be ascribed its present crooked growth; but the tree being a very shallow rooted one and growing in localities exposed to the full force of the breeze, it is more than probable that the swaying about, to which it is subjected, induces a sinuous growth. Perfectly straight poplar poles and rafters are rarely, if ever, found.

47. The tree coppices readily, and from the roots, which spread out laterally and run just below the surface, a heavy crop of young poplar springs up. After a fire in the Azizpur Forest, in the Sukkur Division, in an area where there were several mature poplar trees, young poplar was found freely springing from the roots at 30 feet from the parent tree.

48. Poplar flourishes along the Indus as far down near its mouth as Kot Almo, a reserved forest, a few miles north of Tatta in the Shahbunder District. The railway have tried it as fuel and rejected it; and the only use it is put to is for timber. The figures given in para. 87 show large quantities of rafters, &c., disposed of at depôts annually which are mostly of poplar.

49. Kandi (*Prosopis Specigera*) is found growing away from localities subjected to heavy inundation. It possesses great vitality, grows rapidly, and coppices with astounding rapidity where the stools are not entirely submerged by flood. In any felling operations, therefore, which are undertaken care has to be exercised not to cut the stools low down otherwise after results are nil. On being fully established the tree can exist without surface irrigation and will coppice freely although it is doubtful whether under such circumstances it will survive a second felling. The roots of this plant enter very deep in the sub-soil, and there is one instance recorded by Sir D. Brandis, where the root penetrated upwards of 70 feet. In view of this characteristic it would possibly be a better tree to plant along the base of bunds than babul which is a very shallow rooted plant and easily uprooted by wind and flood.

50. Babul, probably, is thought to be more lucrative to the Public Works Department because of the sum realised by the sale of its timber and pods, and by the sale of lac, especially in Central Sind; and while it may be grown with impunity along some canal banks, it existence along the bunds must always imperil their safety, as any storm suddenly arising probably would blow down a tree and cause a breach in the embankment or canal bank. Kandi is seldom or ever blown down: in fact the writer of this report cannot recall an instance of having seen one down. The lac insect, moreover, subsists on this tree to a small extent and its pods are also used for fodder. It has been known to seed three times in the year, and the poor people in times of scarcity grind the seed and use it as an article of food.

Artificial reproduction.

51. The amount of babul and kandi seed collected by Range Forest Officers in the circle amounted to 2,321 maunds. This was sown chiefly broadcast in the kachas in pure tamarisk jungle, and also in compartments that had been exploited and fenced in, and a quantity of seed was sent to the Northern and Central Circles. The total area so sown amounted to 12,200 acres. Seed that has either been quidded by goats, or which is found in the excreta of bullocks is, as a rule, collected by Range Forest Officers, who pay 8 annas a maund for its collection. In view of the remarks made in paras. 43 to 45, regarding natural reproduction, it may seem a waste of money collecting seed and sowing it in the forests; but no matter how successful natural reproduction may be, artificial agency has to be employed to assist in the distribution of babul in certain localities. There are areas, for instance, of unmixed tamarisk which it is necessary should be replaced by babul, and it is more especially in these and other open glades in a forest that artificial means are resorted to. In Upper Sind especially is artificial aid more necessary for the reproduction of babul, because such forests are not common there, and the cold in winter is so severe that the young tree requires very

careful treatment in its earlier stages of growth. It is not at all certain whether the same means as are adopted for the growth of tali (*Dalbergia Sissoo*) should not be adopted for babul, bearing in view its value and demand especially for the Quetta Commissariat. The young tali plants are covered with straw in winter till three or four years old, and in this way extensive plantations of this latter tree, a *quasi-exotic*, have been created. There are now about 200 acres under tali in the Sukkur Division, 100 acres having, during the past two years, been carried away by the river, as explained in para. 4 of last year's report. Tali has a very straight bole, and sells at Re. 1-4-0 a cubic foot, while babul and poplar sell at 8 annas. The cost of cutting and delivering the timber amounts to 2 annas per cubic foot.

52. Babul grown from broadcasting the seed in Lower Sind in the closed compartments has attained the following dimensions in 2 years: 4¼ inches in girth, 10 feet in height. Rats did a great deal of damage to the young seedlings, the roots of which they attacked.

53. In the Rahuja nursery near Sukkur there are a few *Eucalyptus* trees and one teak tree, all of which are just keeping alive. Oranges, peaches and grapes grow very well in this nursery, and are usually sold at a good price. A few bamboos also exist here, and it is found that this tree would thrive if it were artificially encouraged; but the great attention it requires makes its extension as a forest tree prohibitive.

54. In the Sonda and Miani nurseries in the Jerruck and Hyderabad Divisions the *Prosopis Glandulosa* was introduced some years ago, and now this plant may be seen spreading in the forest of its own accord.

55. At a time when the finances of the country are so embarrassed it is necessary to point out a source of revenue in the Province which has hitherto remained dormant, and the developement of which might, if needed, be left in the hands of the Forest Department; but considering the heavy administrative duties of the officers and the numerically weak establishment at command, the care of it might be left to the officers of the Revenue Department, who have a much larger subordinate staff, and more means at their disposal for carrying out the operations. The source of revenue referred to is from the fibre of the "ak" plant (*Calotropis Gigantea*). Its fibre has been reported by experts to be worth £ 30 to £ 40 per ton, against £ 18 to 21, for jute. Jute requires most careful cultivation with manuring and a good soil, namely loam, while the ak plant grows wild all over the Province abundantly and thrives even on saline soils. Under the present rude and wasteful system of preparing the fibre one acre is reported to yield 582 lbs. or 727 lbs. where waste is guarded against (*vide* page 72 of Mr. Strettle's pamphlet on the ak plant).

Machine invented for extracting the fibre of plant.

56. The only drawback to the developement of this source of revenue was the difficulty and expense in extracting the fibre from the plant. A machine has now been invented by Mr. Smith, which extracts the fibre from the rhea (*Bochmeria Nivea*) and is used in Bengal for that purpose, and there seems no reason why it should not be introduced into Sind for the use of the ak. A reference was made to Calcutta about the value, &c., of the machine and it is reported to cost £ 55. It is possible a good export trade would result if the cultivation of the ak plant were encouraged and the fibre extracted by means of the machine. The exports of jute from India amount to about four millions sterling a year.

Proposed Sultankote plantation of 11,000 acres.

57. As soon as the new canal, north of Shikarpur, is completed arrangements ought to be made for the conversion of 10,000 acres of the Sultankot Reserve into a plantation on the scale of Changa Manga in the Punjab. This is a most important work and will be of immense benefit not only for the purposes of the Quetta fuel supply but also for the Province. Shikarpur is one of the largest towns in the Province, and the country for miles and miles around it it entirely bereft

of trees. At one time, as the reserves situated in the vicinity of the town show, a large quantity of fuel and fodder were available from them when the floods were allowed to spread. Now, every vestige of grass has disappeared, and the few trees left are decaying, or have been converted into scrubby bushes by the continued browsing of goats and camels, and in a few years will be entirely effaced. An estimate of the cost of starting this plantation and of maintaining it was submitted just after the close of the forest year, in which it was shown that the plantation (11,000 acres) would after 12 years pay 11 per cent on the capital outlay; water for the plantation to be given gratis as it would be surplus water from the Shikarpur Canal.

## Exploitation of Major Forest produce.

58. Fuel is cut and carried to the different railway stations in the Province departmentally from selected compartments. Range Forest Officers employ a class of men styled "Labana" in Upper Sind, and "Chawan" in Lower Sind, who cut and stack the wood in stacks of 1,000 cubic feet. Kandi (*Prosopis Specigera*), babul (*Acacia Arabic*) and Tamarisk (*Tamarix Dioica and Gallica*) are the kinds of wood used for fuel both by the railway and different Government Departments and private purchasers.

Regulated fellings.

59. To cut and deliver a stack of fuel of 1,000 cubic feet on the river bank or dhand costs from Rs. 10 to Rs. 16. The billets are as a rule $2\frac{1}{2}$ feet long and from 8 inches to $2\frac{1}{2}$ feet in girth.

60. Timber is cut mostly by contract agency on the share system. A contractor cuts and delivers the material at the depôt, and on its sale receives Re. 0-10-6 in a rupee. The exploitation of timber is carried on under the jardinage method.

61. In the Jerruck Division babul timber is exploited by a contractor who prepares sleepers and bolsters himself from it in the forests. Babul beams of an average contents of 20 cubic feet each are also cut by a contractor annually for the Gun Carriage Factory in Bombay. The material cut, is sent by boat to Keti Bander, at the mouth of the Indus, and then re-shipped in sea boats to Bombay.

62. Charcoal is exploited on the share contract system in the Hyderabad Division, and departmentally in the Naushahro and Jerruck Divisions. On the share system the contractor cuts up and makes the charcoal, and on its sale realises 12 annas in the rupee. In the Jerruck Division the material is cut and converted departmentally, at Rs. 16 to 20 per 100 maunds, and sold to a contractor on the spot at Rs. 38 per 100 maunds. The weighing of the charcoal is done in the compartments by the Range Forest Officer, in the presence of the contractor and charcoal makers, and the latter take care to see that no short weight and very little waste are allowed, because payments for work are made according to the contractor's receipts. Before commencing work the charcoal makers are given advances and as soon as deliveries are made to the contractor the advances are cleared off.

63. The busy season in the circle commences in November and continues upto the end of May, when the river rises and overflows its banks, and the forests get flooded to various depths, ranging from 1 to 8 feet. From July to about the end of September, therefore, no work practically is done in the riverain areas. At this season extraction of forest material to a very large extent by boat takes place.

Commencement and end of busy season.

64. The towns of Sukkur, Rohri, Shikarpur, Larkana and Hyderabad are chiefly supplied with dead and fallen fuel, extracted by men who collect it from the inland forests themselves on permits, and carry it to these places on camels and

Unregulated fellings.

donkeys and in carts. Nakas are situated on the various roads leading into the above places, where munshis are stationed who collect dues on the different loads as they enter the town. In Shikarpur fuel is thus brought from 32 to 35 miles. In Rohri, Sukkur, Larkana and Hyderabad, the distances vary from 2 to 10 miles. A large number of people are engaged in this occupation and the profit derived on firewood is fairly lucrative. A good deal of fraud is often attempted by the Naka Munshis and peons engaged by the Forest Department, and the work of checking imports requires very close supervision. The revenue derived from this source is Rs. 30,264 as detailed in para. 104.

*Extraction and Transport of Forest produce by Land and Water.*

65. The Indus is utilised very largely for the transport of railway fuel and timber from the forests to the different railway stations and depôts. During the inundation months especially is the largest quantity of fuel carried along it. In the cold months the forests for the most part stand high and dry, or they are perhaps situated on a side channel of the river. In such cases the wood is cut and stacked on the bank in the working season and as soon as the water reaches the forest in the inundation, boats come and lift the wood and convey it a distance perhaps of 35 or 40 miles to railway stations. At some stations in the Sukkur, Naushahro, Hyderabad and Jerruck Divisions, railway fuel is conveyed direct from the forests to stations by the wood-cutters themselves on their donkeys: at other stations wood is cut by the wood-cutters and carried independently by petty contractors by means of carts and camels.

Railway fuel supply in the Jerruck Division.

66. The supply of fuel for the railway, from the Jerruck Division, has in former years been small owing to the difficulty of obtaining boats to convey the material to Kotri: all forests in Jerruck, it must be remembered, being situated below that place. It was only in the inundation season, and from forests about 15 to 20 miles from Kotri, that fuel, as a rule, could be conveyed there by boat, as the south-west wind, which springs up when the river rises, enables traffic against the current to be carried on.

Carriage of fuel by steamers.

67. During the year under report, however, the railway were induced to bring a large steamer "Tug D" into use for conveying fuel from the forests in flats and by this means three laks cubic feet were so conveyed in three months during the cold whether to Kotri: an operation which may be said to have been extremely satisfactory in spite of the many difficulties that arose. Without the steamer the forests which supplied the fuel would never have been and could never have in the future been exploited at all (1) because they are situated upwards of 60 miles below Kotri near Tatta, and the carriage by boat from such a distance, while being probably impracticable, would have been prohibitive on the score of expense, and (2) because the growth of these forests, consists chiefly of tamarisk (*Tamarix Gallica*) and kandi (*Prosopis Specigera*) species of wood not suitable for the coast and Karachi trade and therefore never exploited for these places. The cost inclusive of royalty, cutting, and delivering fuel in this manner from the forests to the railway stacking ground at Kotri, was Rs. 52-0-0, a rate below that which the same administration pay the Punjab Forest Department for fuel supplied in that Province to them. The experiment cannot probably be again repeated at the same rates but it showed (1), that a large quantity of fuel, which otherwise could not be exploited at all, can be utilised, and (2) that even if the cost to the railway be Rs. 60-0-0 per 1,000 cubic feet such an expenditure would be about Rs. 40-0-0 per 1,000 cubic feet cheaper than coal, taking the price of that article to be Rs. 20-0-0 per ton delivered in Karachi, which is the quotation of Messrs. McIver, Mackenzie & Co., the British India Agents, and reckoning 2 tons of wood to be equal to one ton of coal. But the railway decline to pay more than Rs. 46-0-0 at the outside in future.

68. Forest material for the railway cannot be said to have been properly extracted from the forests till handed over to the railway, and the duty

of handing it over to the latter administration devolves upon a European contractor, Mr. Clarkson, and a staff of munshis. Under the old contract system contractors cut and delivered the material themselves to the North-Western Railway, and the fuel they often brought to stations was so inferior that it would not be accepted even at a reduced rate by the Railway authorities; it used to remain for months at stations in peril of being destroyed by fire from the sparks of passing engines; and finally the then Conservator obtained the sanction of Government to the employment of an Extra Assistant Conservator to go up and down the line to settle disputes that arose between contractors and Fuel Inspectors, vide Government Resolution No. 6762 of the 5th October 1887.

69. All these disputes are now at an end (as reported last year, vide para. 24 of the Administration Report) and a still more satisfactory feature of the arrangement now is, that in addition to the saving of the Extra Assistant's pay (as the employment of one on the line is no longer necessary) a saving of Rs. 17,273 has been effected from the change to the departmental system. The latter system means that the cutting and extraction of wood is carried on by Range Forest Officers, who have nothing to do with handing over the wood to the railway at all. Mr. Clarkson does this, and he sees that only material suitable for the engine boilers is put into stacks. At first considerable opposition arose among the subordinates to the employment of Mr. Clarkson, which has now disappeared and work is carried on both satisfactorily in the forests and harmoniously with the railway officials, and harmoniously also between the Forest subordinates and Mr. Clarkson.

Extraction of Charcoal.

70. Charcoal made departmentally in the Jerruck Division is sold to contractors on the spot in the forests, who remove it at their own expense by means of camels and boats. This material is taken to Keti Bunder by river, and then on to Karachi in sea boats. Six annas a maund is the cost of charcoal to purchasers in the forests and by retail sale it is disposed of in Karachi at 15 annas or rupee one per maund. In the Hyderabad Division, charcoal is manufactured by a contractor and is conveyed to the Hyderabad Depôt by river, first to Gidu Bunder, about 15 miles, and then on in carts to Hyderabad by road, a distance of about 3 miles. A certain quantity is disposed of in the forests and removed by purchasers by river at their own expense. From the Naushahro Division charcoal is sent to Sukkur and Quetta by rail by purchasers.

## *Exploitation of Minor Forest Produce.*

Grazing.

71. The inundation was almost the highest on record, and the riverain forests in consequence were well watered. In Lower Sind the bunds and canal banks burst in various places providing a good deal of fodder both in and outside forest limits. The grass was so dense in the lands set apart for kharif and which had been destroyed by flooding that the people, in order to clear their fields for the next season's crop set fire to it, and the fires, as reported in para. 37, spread in some instances into forests. The grazing in such forests as Garhi Yasin in the Naushahro Division, and Sultan Kot in Shikarpur, large tracts permanently cut off from the river is confined chiefly to goats and camels which browse on Kandi and Tamarisk bushes. No surface growth exists and no reproduction is taking place in these tracts and the heavy browsing to which the growth is subjected is gradually making it small by degrees and beautifully less.

72. In the Rohri Sub-Division of the Shikarpur District, the great part of which is not cut off from the river by bunds, pasture is always abundant as it is in the Shahbander and some parts of the Jerruck Division also. The grass in these localities is often most luxuriant and plentiful, as the vast number and excellent condition of cattle about that part of the country, indicate.

73. In the canopied babul forests in Central and Lower Sind, where there are numerous camels and goats, a great deal of promiscuous damage to the forest is done by goat herds, who are very fond of lopping branches for the benefit of their goats which cannot reach the higher shoots.

Damage to growth by goats and camels.

74. Grazing in the forests is a subject of great importance in the Province as by means of it, a large part of the rural population make a living by selling the dairy produce of their animals. Many of the forests also form breeding grounds for all kinds of animals, especially camels, the latter of which are used by District officers almost entirely for the carriage of their camp equipage in the District season. It is natural, therefore, that the interests of the Forest Department and those of the cattle-owners should clash, because on the one hand the Forest Department are expected to recover fees on all the animals that graze in their forests, and on the other, the people endeavour to evade payment of fees.

Importance of grazing in Forest Reserves.

75. The grazing rules approved by Government in 1886 (*vide* Government Resolution No. 7277 of 13th October 1886) are now strictly carried out. The system in Sind is for the fee to be levied per mensem, at various rates ranging from 4 annas for a camel and 3 pies for a goat, as follows :—

Grazing rules framed by the Commissioner.

| Animals. | Grown, maximum rates. | | | Young, maximum rates. | | |
|---|---|---|---|---|---|---|
| | Rs. | A. | P. | Rs. | A. | P. |
| Camel ... ... ... ... | 0 | 4 | 0 | 0 | 2 | 0 |
| Buffaloe ... ... ... ... | 0 | 3 | 0 | 0 | 1 | 6 |
| Cow or bullock ... ... ... | 0 | 1 | 6 | 0 | 0 | 9 |
| Goat or Sheep ... ... ... | 0 | 0 | 3 | 0 | 0 | 0 |
| Ass ... ... ... ... | 0 | 1 | 0 | 0 | 0 | 6 |
| Horse ... ... ... | 0 | 1 | 6 | 0 | 0 | 9 |

Passes are required to be taken out for two months at a time. The Range Forest Officer issues the pass on the statement of the individual who demands a pass, and subsequently when inspecting the forest he checks it by counting the cattle found in the forest grazing, and this duty also devolves upon the Divisional Forest Officer himself. If more cattle are found grazing in the forests than are entered in the pass the owner is fined an extra month's fees and if the cattle-owner has not his pass with him at the time of inspection he is charged a fortnights fees extra.

76. The penal clauses under the rules do not, it is found, act as a sufficient deterrent in preventing an infraction of the rules, which accounts for the number of cases of illicit grazing recorded (*vide* Settlement D) : although the number is smaller proportionately than last year the figures of which are for 15 months. The cattle-owners are a as, rule, so well to do that no very great hardship results when extra fees are demanded of them, for where extra fees are paid perhaps in one instance a dozen other instances could be shown where illicit grazing was practised without detection. No very great difficulty exists in evading the extra payment, because by collusion with the Forest Guard of the beat (a man whose net pay amounts to about Rs. 6-8-0 or Rs. 5-8-0 per mensem) information is always available of the whereabouts of the Range Forest Officer and Divisional Forest Officer, and if by any chance either of these officers be near a forest, extra

Penal clauses in the rules do not sufficiently prevent infraction of them.

animals grazing in it are at once removed from it. To grapple with the evils attending the present system of grazing collections in the Province under such circumstances is very difficult, and any increase in offences under this head ought to be viewed with favour because it clearly indicates that the superior officers are doing their duty in the face of strong opposition consisting of their own subordinates and the owners of cattle.

77. Those people who are allowed to live in the forests, or on the border, in the fair season are treated as a rule with much consideration, so much so, that they render the Department help in erecting boundary marks which annually require reconstruction because of damage caused by floods, and in the erection of large hedges, and the clearance of rides, all free af cost, and if some extra head are grazed without the payment of a fee nothing is said; but it is only when extensive systematic frauds are practised that a rigid enforcement of the rules becomes necessary.

Area closed to grazing.

78. The total area closed to grazing in the Province amounted to 35,079 acres, or about 55 square miles. The areas closed are not closed in name only: hedges round each block are erected in order that there may be no mistake about what is close and what is open, and the hedges, are constructed extra strong so as to prevent stray cattle passing through inside. These hedges form a great feature of the Sind forests, and their erection for the most part entails no extra expense to Government. Compartments, half a mile square, of 160 acres are each fenced in in a forest leaving the rides clear for the passage of cattle to and fro to grazing grounds beyond, so as to interfere as little as posible with the convenience of the forest population.

79. The grass in the closed compartments becomes much prized, especially towards the latter part of the season when everything outside becomes as dry as tinder: protection then becomes a troublesome matter. Some of the cattle-owners who are less law-abiding than others deliberately break down the fences and admit their animals. The closed areas are also utilized by people who do not wish to leave an attendant in the forest to look after their cattle and who therefore turn them into the fenced-in areas.

Free grazing.

80. The number of animals that grazed free under the Forest Settlement Officer's proposals was 14,075. In addition to these, animals belonging to wood-cutters and the charcoal contractors grazed free while actually working in the forests. Passes, coloured red, are issued to the owners of free cattle which are renewed every six months.

Alteration necessary in the present system of collecting grazing fees.

81. The present system of collecting the grazing revenue requires alteration, as the constant *monthly collection* of the revenue throws a vast deal of work on Range Forest Officers who have to superintend their railway fuel cutting operations, to count the number of trees extracted from each compartment, mark standards, undertake the transport of material by boat, and various other duties. In Chapter III it will be shown what a small protective establishment Sind has as compared with the Province next door, the Punjab, where the quantity of material extracted per acre is about the same, and indicates the amount of labour thrown on a Range Forest Officer.

Miscellaneous produce.

82. Nowhere is grass extracted by villagers from the forests for the feed of their cattle, and no grass kurans exist, nor is grass sold by auction. The right to collect sar reed and munj grass is sold by auction, and this is used for thatching roofs, and for door chicks, &c. The collection of lac in the Hyderabad and Jerruck Divisions is undertaken by a contractor who bought the right for Rs. 7,000 in Hyderabad, and in Jerruck for Rs. 330.

83. Lac flourishes chiefly on the babul (*Acacia Arabica*) but is also found on the Kandi (*Prosopis Specigera*) ten miles south of Hyderabad on the Fuleli. The insect seems to avoid damp and a moist atmosphere and only thrives in those forests in the Jerruck Division removed some distance from the Indus. There are two crops of lac in the year: one gathered between November and February and the other between May and July. The produce is exported to Europe, Mirzapur and Calcutta. The collection of babul pods is let to contractors who buy the right to collect them at auctions annually.

## CHAPTER III.

### Gross yield and outturn of Forest Produce.

84. The following statement shows the details of the working of the Depôts :—

| Name of Depôt. | Stock on hand on 1st July 1893. | | | Added during the Forest year. | | | Disposed of during the Forest year. | | | Balance on the 30th June 1894. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Timber. | Posts and rafters. | Fuel. | Timber. | Posts and rafters. | Fuel. | Timber. | Posts and rafters. | Fuel. | Timber. | Posts and rafters. | Fuel. |
| | C. ft. | No. | Mds. | C. ft. | No. | Mds. | C. ft. | No. | Mds. | C. ft. | No. | Mds. |
| Shikarpur... ... ... ... ... ... | 371 | 2,744 | ... | 2,096 | 816 | ... | 1,143 | 3,324 | ... | 1,324 | 236 | ... |
| Sukkur ... ... ... ... ... ... | 10,776 | 16,620 | ... | 24,708 | 46,457 | ... | 16,487 | 37,260 | ... | 18,997 | 25,817 | ... |
| Rohri... ... ... ... ...* ... ... | 2,340 | 2,667 | ... | 7,455 | 12,550 | ... | 3,434 | 11,894 | ... | 6,361 | 3,323 | ... |
| Larkana ... ... ... ... ... ... | 13 | ... | ... | ... | ... | 4,500 | 13 | ... | 2,500 | ... | ... | 2,000 |
| Sehwan ... ... ... ... ... ... | ... | ... | ... | ... | 1,360 | ... | ... | 1,360 | ... | ... | ... | ... |
| Keti Bandar ... ... ... ... ... | ... | ... | 1,000 | 15,151 | ... | 4,062 | 15,151 | ... | 4,000 | ... | ... | 1,062 |
| Kotri... ... ... ... ... ... ... | ... | 5,005 | 18,250 | 8,150 | 8,603 | 149,280 | 8,150 | 13,613 | 158,586 | ... | ... | 8,944 |
| Hyderabad ... ... ... ... ... | 1,068 | 38,107 | 10,247 | 18,800 | 85,502 | 133,333 | 19,826 | 102,149 | 143,364 | 657 | 21,160 | 216 |
| Total ... | 15,183 | 65,143 | 29,497 | 76,360 | 155,293 | 291,175 | 64,204 | 169,600 | 308,450 | 27,339 | 50,836 | 12,222 |

85. The amount of timber disposed of at depots during the year was 64,204 as against 53,274 cubic feet for the year previous. The increase was owing to sales in Upper Sind due to the contractor having brought in more material for disposal than was the case the year before when the share system did not exist. The share system was introduced in Upper Sind for the first time during the year and its results are being carefully watched. The contractors naturally under this system bring in as much material as they possibly can to depôts because their earnings are increased thereby, and Divisional Forest Officers will have most carefully to superintend their operations in order to see that more than the annual sustained yield in not being indented upon.

There is a slight falling off in the return for rafters and fuel which needs no explanation.

86. Deodar and pine timber is largely imported into Sind by river from Jhelum and Kashmere. Such timber is rafted down the Indus, cut up into scantlings at Sukkur and transmitted by rail to Quetta and other parts of the Province. Timber in the log is also sent away to various places by rail. Huge logs of Deodar and pine are also rafted down as far as Kotri whence they are sent to Hyderabad. Foreign material of this description realises from Re. 0-8-0 to Re. 1-6-6 per cubic foot and it is bought chiefly by the wealthier classes for the construction of their houses, and it is used also for the doors and windows of buildings constructed by the Public Works Department. No record is kept of imports of foreign timber. A suggestion was made six years ago to impose a light duty on such material because of its competition with local grown timber but the suggestion was vetoed.

87. The following is a comparative statement for 1892-93 and 1893-94 of the quantity of timber and firewood sold at each depot :—

| Name of Depôt. | Timber, c. ft. | | Posts and Rafters, No. | | Firewood, Mds. | |
|---|---|---|---|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. |
| Shikarpur | 176 | 1,143 | 7,045 | 3,324 | ... | ... |
| Sukkur | 19,492 | 16,487 | 51,366 | 37,260 | ... | ... |
| Rohri | 1,980 | 3,434 | 15,260 | 11,894 | ... | ... |
| Larkana | 36 | 13 | ... | ... | 3,700 | 2,500 |
| Sehwan | 10 | ... | 8,946 | 1,360 | ... | ... |
| Keti Bander | 17,665 | 15,151 | ... | ... | 1,000 | 4,000 |
| Kotri | 31 | 8,150 | 9,137 | 13,613 | 184,315 | 158,586 |
| Hyderabad | 13,884 | 19,826 | 133,596 | 102,149 | 121,379 | 143,364 |
| Total ... | 53,274 | 64,204 | 225,350 | 169,600 | 310,394 | 308,450 |

88. The material cut from private jungles, and unoccupied Government waste lands and jagirs, and imported for sale into the town of Hyderabad and Kotri, is given in the following statement :—

| Name of Town. | Babul logs. No. | Posts and Rafters of all kinds. | Firewood. | Charcoal. | Babul bark. | Lac. | Planks. | Reed. | Estimated value. |
|---|---|---|---|---|---|---|---|---|---|
| | No. | No. | Mds. | Mds. | Mds. | Mds. | No. | Bundles. | Rs. |
| Hyderabad | 1,682 | 1,100 | 97,733 | 1,134 | 12,971 | 913 | ... | ... | 13,936 |
| Kotri | 691 | 16,214 | 27,399 | 160 | 3,666 | ... | 190 | 300 | 3,942 |
| Total ... | 2,373 | 17,314 | 125,132 | 1,294 | 16,637 | 913 | 190 | 300 | 17,878 |

89. A large quantity of timber, firewood and charcoal is also imported into Karachi from lands other than forest, records of which are not kept because there is no forest establishment at Karachi; but records will be kept if possible in future. In the case of babul areas cut by private persons no reproduction is going on in them at all, as is observed ; so that it is only a question of time for such sources of supply to cease and further demands upon the forest areas to ensue.

90. The total quantity of material shown in the above statement is somewhat less than the previous year although the estimated value of it is greater by about Rs. 4,000.

91. The following statement exhibits the quantity of timber supplied to the Bombay Gun Carriage Factory and other Government Departments in Sind and Beluchistan :—

| Name of Department. | Babul logs. | Babul sleepers. | Babul slabs. | Babul Bolsters. | Babul Props. |
|---|---|---|---|---|---|
| | No. | No. | No. | No. | No. |
| Executive Engineer, Sharig | ... | ... | 413 | ... | 20,002 |
| Gun Carriage Factory Bobay | 724 | ... | ... | ... | ... |
| North-Western Railway | ... | ... | ... | 620 | ... |
| Port Engineer Karachi | ... | 9,997 | ... | ... | ... |
| Total ... | 724 | 9,997 | 413 | 620 | 20,002 |

92. The Gun Carriage indent, *viz.*, 900 logs, was exceptionally high in 1892-93. During the year 724 logs were supplied and in future 500 a year will be the amount required. Each log on an average is 20 cubic feet without the bark. Arrangements are in progress to cease supplying the Gun Carriage Department in future *departmentally*, (which will have the advantage of reducing expenditure in the circle). At present the Forest Department employ a contractor to cut the logs and deliver them at Bombay for Re. 1-7-0 per cubic foot and Rs. 1-15-0 is recovered from the Gun Carriage Department by book transfer.

93. The contractor has been doing this work for a number of years: he is a man of means and is capable of undertaking the supply of the logs himself and under such circumstances there seems no reason why the Forest Department should incur the expenditure required for the supply. The arrangement proposed is for the contractor to purchase and pay for the timber at Rs. 7-8-0 to Rs. 8-0-0 a log from the Forest Department in the forests and deliver it at his own expense to the Gun Carriage Department, Bombay, receiving the usual value from the latter Department, namely, Re. 1-15-0 per cubic foot himself. The great advantage of this system is that it reduces departmental expenditure and that the risks and responsibilities, attending shipment of the timber, by the Forest Department cease after it has been handed over to the contractor in the forests. Under the old system the expenditure required to make a profit of 8 annas a cubic foot was Re. 1-7-0; under the proposed plan the expenditure will be absolutely nil and the Department will only show the revenue, namely Rs. 7-8-0 a log which will be a direct set off against permanent establishment charges.

94. The subjoined is a comparative statement of the quantity of firewood supplied under departmental agency to various Government Departments and other large consumers:—

| To whom supplied. | Firewood in maunds. | |
|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. |
| North-Western Railway ... ... ... ... ... | 1,692,215 | 1,283,054 |
| Commissioner's Steamer "Jhelum" ... ... ... ... | 27,584 | 29,965 |
| Indus Ferry Steamers ... ... ... ... ... | 66,622 | 68,557 |
| River Conservancy Department ... ... ... ... | 5,281 | 4,494 |
| Public Works Department ... ... ... ... | 43,488 | 41,587 |
| Karachi Harbour Works... ... ... ... ... | 21,857 | 39,516 |
| Commissariat Department ... ... ... ... | 203,860 | 217,976 |
| Hyderabad Water Works ... ... ... ... | 52,000 | 61,800 |
| Sukkur Municipality ... ... ... ... ... | 10,400 | 7,295 |
| Hyderabad Jail ... ... ... ... ... | 4,178 | 3,576 |
| Government Farm, Hyderabad ... ... ... ... | 7,500 | 4,500 |
| Seth Vishindas, Contractor ... ... ... ... | 45,383 | 10,169 |
| Local Boards, Shikarpur and Hyderabad ... ... ... | 6,975 | ..... |
| Sukkur Water Works ... ... ... ... ... | ..... | 600 |
| Executive Engineer, Military Works, Quetta ... ... ... | ..... | 2,207 |
| Adjutant Royal Artillery, Quetta ... ... ... ... | ..... | 973 |
| Messrs. Herman, Boyce & Co. ... ... ... ... | ..... | 8,550 |
| Cotton ginning engines ... ... ... ... ... | ..... | 200,700 |
| Total ... | 2,187,343 | 1,985,499 |

95. The main reason why the total supplies fell short of the previous year is because of the difference in periods namely 15 and 12 months, respectively, and the inability of the Forest Department to cope with the indents. The railway indent, for instance, was for 108 laks cubic feet or 27,00,000 maunds, whereas the total amount of wood supplied to them was 51,32,216 cubic feet or 12,83,054 maunds.

96. The cost of carriage especially is increasing and unless the railway are prepared to pay more for extracting their fuel from the forests, their supplies must be expected to fall short. Forests nearest the railway line, too,

and close to the riverbank are being closed for reproduction, so that the Department has further and further to seek for its fuel and the cost of carriage must, therefore, increase.

97. A complaint was made to the Commissioner during the year by the Manager, North-Western Railway, because the Forest Department sought higher rates for cutting and delivering wood at stations. The Manager threatened to burn coal, a threat which could never have been considered seriously, it is thought, when a comparison with the present rates of coal and the cost of fuel is made. Coal in Karachi is Rs. 20-0-0 per ton, and to deliver it at stations as far as Reti and Sukkur would cost about Rs. 5-0-0 to Rs. 7-0-0 per ton more at these stations and others in the whole circle. The average price paid by the railway for fuel equal to a ton of coal was Rs. 13-0-0 per ton, or half the value of coal, and Rs. 13-0-0 per ton is placing the equivalent of 1,000 cubic feet of wood at a figure even below 200 maunds, whereas 1,000 cubic feet is generally taken to be equal to about 250 maunds. It pays the Burma State Railway to burn wood at Rs. 71-4-0 per 1,000 cubic feet equivalent to Rs. 23-0-0 per ton of coal and it pays the North-Western Railways to burn wood at Rs. 53-8-0 or Rs. 18-0-0 per ton of coal in the Punjab.

This is the figure the same administration pay the Punjab Forest Department now for 1,000 cubic feet of wood and yet a comlaint is made against the Sind Forest Department, who supply it at Rs. 5 per ton cheaper, and a threat to burn coal is added because an increase of about one rupee was asked on rates for cutting and delivery all round. It may be mentioned that the railway pay private contractors Rs. 55 per 1,000 cubic feet for fuel at Sukkur which is equivalent to Rs. 18 per ton of coal and only pay the Forest Department Rs. 45, or Rs. 15 per ton at the same station.

98. It is interesting to note that the Sind Forest Department supplies wood at a cheaper rate to the North-Western Railway than the rate at which any other railway is supplied with wood by any Forest Department in India and Burma, as the following figures (for 1892-93) show.

| | | | | |
|---|---|---|---|---|
| North-Western Railway, Sind Forest Department, Rs. | 39 | 0 | 0 | per 1,000 c. ft. |
| Do. Bahawalpur State | 45 | 0 | 0 | do. |
| Do. Punjab Forest Department | 53 | 8 | 0 | do. |
| Madras Railway ... ... ... | 51 | 14 | 0 | do. |
| Southern Maharatta Railway, Bombay Forest Dept. | 42 | 8 | 0 | do. |
| Do. Mysore State | 61 | 10 | 8 | do. |
| Burma State Railway ... ... | 71 | 4 | 0 | do. |

*N. B.*—Ten tons have been reckoned to be equivalent to 1,000 cubic feet of wood.

99. The quantity of timber felled departmently and disposed of in the forests to private purchasers is given below :—

| Division. | Timber. | Bahan and babul Posts. | Bahan and babul Rafters. | Jhau and kandi Rafters. | Babul Props. | Sleepers. | Planks. |
|---|---|---|---|---|---|---|---|
| | C. ft. | No. | No. | No. | No. | No. | No. |
| Sukkur ... ... | ... | 71 | 62 | ... | ... | ... | ... |
| Naushahro ... | 4,717 | 20 | 19 | 8 | 8 | ... | 1 |
| Hyderabad ... | 2,123 | ... | 58 | ... | ... | 20 | ... |
| Jerruck ... ... | 363 | ... | ... | ... | ... | ... | ... |
| Total ... | 7,203 | 91 | 139 | 8 | 8 | 20 | 1 |

100. The following statement shows the value of timber and firewood removed from the forests other than that removed under the Permit Pass system for the last two years :—

| Division. | Timber. | | Firewood. | |
|---|---|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. |
| Sukkur ... ... ... ... | 2,294 | 3,794 | 697 | 980 |
| Naushahro ... ... ... | 1,021 | 1,048 | 447 | 711 |
| Hyderabad ... ... ... | 2,596 | 2,046 | 3,763 | 3,104 |
| Jerruck ... ... ... ... | 811 | 1,067 | 622 | 520 |
| Total ... | 6,722 | 7,955 | 5,529 | 5,315 |

101. The following is a comparative statement showing receipts from different ghats (*vide* unregulated fellings, para. 64).

| Name of Division. | Name of Ghat. | Revenue realised. | |
|---|---|---|---|
| | | 1892-93, 15 months. | 1893-94, 12 months. |
| Sukkur | Rahuja, Jhali, Rohri | 13,086 | 13,069 |
| | Saddar, Stewart, Khura | 17,476 | 13,294 |
| Naushahro | Larkana | 2,549 | 1,990 |
| | Garhi Yasin | 1,167 | 945 |
| Hyderabad | New Fuleli, Old Fuleli, Hajipur | 1,721 | 966 |
| | Total Rs. ... | 35,999 | 30,264 |

102. Free grants of timber made to poor people residing in the vicinity of forests are given below :—

| Division. | Amount. | Remarks. |
|---|---|---|
| | Rs. p. a. | |
| Sukkur ... ... ... ... | 365 5 3 | |
| Naushahro ... ... ... | 38 0 0 | |
| Hyderabad ... ... ... | 180 0 0 | |
| Jerruck ... ... ... ... | 121 0 0 | |
| Total ... | 704 5 3 | |

Summary of produce.

103. Timber extracted from the forests by Government, *i.e.*, departmental agency is given below :—

| Division. | Timber. | | Posts. | | Rafters. | |
|---|---|---|---|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. |
| | C. ft. | C. ft. | No. | No. | No. | No. |
| Sukkur | 23,183 | 21,064 | 14,297 | 9,976 | 59,872 | 46,135 |
| Naushahro | 5,143 | 5,385 | 1,372 | 35 | 7,574 | 1,330 |
| Hyderabad | 18,935 | 34,284 | 16,618 | 21,223 | 123,146 | 80,718 |
| Jerruck | 28,733 | 24,762 | 590 | 602 | ... | ... |
| Total... | 75,994 | 85,495 | 32,877 | 31,836 | 190,592 | 128,183 |

104. The following statement exhibits a comparison of the quantity of timber cut and removed from the forests by purchasers in two years :—

| Division. | Timber. | | Posts. | | Rafters. | |
|---|---|---|---|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. |
| | C. ft. | C. ft. | No. | No. | No. | No. |
| Sukkur ..... | 1,836 | 23,431 | 304 | 216 | 15,150 | 25,537 |
| Naushahro ..... | 2,563 | 3,143 | 50 | ... | 20,123 | 17,789 |
| Hyderabad ..... | 4,097 | 3,609 | 2,672 | 1,414 | 19,675 | 13,397 |
| Jerruck ..... | 1,461 | 399 | 4,823 | 991 | 5,916 | 16,360 |
| Total ... | 9,957 | 30,582 | 7,849 | 2,621 | 60,864 | 73,083 |

105. The total yield of timber, the total yield of firewood, and the total yield of charcoal in each Division will be found in statement C attached.

106. The comparative outturn for two years, of timber, firewood and charcoal in cubic feet is as follows :—

| Name of Division. | Outturn in cubic feet. | | | |
|---|---|---|---|---|
| | Timber of all kinds. | | Firewood and charcoal. | |
| | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. |
| Sukkur ... ... ... ... | 76,296 | 89,035 | 7,924,123 | 7,176,543 |
| Naushahro ... ... ... | 23,918 | 18,645 | 3,342,680 | 2,642,390 |
| Hyderabad ... ... ... | 107,477 | 101,128 | 5,265,260 | 4,731,702 |
| Jerruck ... ... ... ... | 42,849 | 60,338 | 3,154,491 | 3,230,953 |
| Total ... | 250,540 | 269,146 | 19,686,554 +250,540 | 17,781,588 +269,146 |
| | | | 19,937,094 | 18,050,734 |

107. The above figures give a yield of 28·73 cubic feet per acre for the year, which although less than last year (15 months) *viz.*, 31·78, cannot be said to be but highly satisfactory. It proves how useful the forests are from a public point of view, and therefore how important it is that they should be properly managed and controlled. In no other part of India is such a large quantity of wood extracted per acre with such a small controlling and executive staff as the following figures (for 1892-93) from certain other Provinces indicate :—

| Name of Forest Department. | Square miles. | Number of officers. | Cost of controlling staff per annum. | Cost of protective and office staff per annum. | Total cubic feet of timber and fuel, &c., removed per acre. |
|---|---|---|---|---|---|
| Burma (Lower and Upper) ... | 32,804 | 49 | 327,600 | 111,576 | 1·66 |
| Punjab ... ... ... | 1,746 | 21 | 127,200 | 133,951 | 32·90 |
| Assam ... ... ... | 10,766 | 13 | 88,800 | 54,629 | ·87 |
| Coorg ... ... ... | 893 | 2 | 12,000 | 21,983 | ·98 |
| Northern Circle, Bombay... ... | 1,554 | 12 | 78,600 | 99,674 | 7·07 |
| Central Circle do. ... ... | 5,913 | 15 | 99,600 | 260,998 | 2·15 |
| Southern Circle do. ... ... | 5,384 | 16 | 96,600 | 175,759 | 2·08 |
| Sind Circle do. ... ... | 980 | 6 | 33,000 | 47,332 | 31·78 |

108. Only in the Punjab, it will be seen, is a slightly larger quantity of material per acre extracted, but for the extraction of this material there is a Conservator on Rs. 1,350, and controlling and executive staff costing Rs. 2,44,951. In Sind the administration is conducted by a Deputy Conservator on Rs. 900 with a total expenditure for controlling and executive staff for Rs. 69,532. If the same controlling staff proportionately were sanctioned in Sind as is now employed in the Punjab the number of officers would stand as follows :—

1 Conservator on Rs. 1,350,
11 Deputies and Assistants.

109. The total yield of the Circle in timber, firewood and charcoal is given below :—

| Kind of Timber. | Quantity. | 1892-93. 15 months. | 1893-94. 12 months. |
|---|---|---|---|
| Timber ... ... ... ... | C. ft. | 250,540 | 269,146 |
| Posts ... ... ... ... ... | No. | 40,726 | 34,457 |
| Rafters ... ... ... ... | No. | 251,456 | 201,266 |
| Sleepers ... ... ... ... | No. | 926 | 10,017 |
| Firewood ... ... ... ... | Mds. | 3,133,741 | 2,627,275 |
| Charcoal ... ... ... ... | Mds. | 75,267 | 91,922 |

110. The following is a comparative statement of the realisations by sale of farms for removal of minor produce and for fisheries :—

| Division. | Babul pods. | | Lac. | | Munj, Sargrass, &c. | | Fishery. | |
|---|---|---|---|---|---|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. | 1892-94, 15 months. | 1893-94, 12 months. |
| Sukkur ..... | 756 | 135 | ... | ... | 932 | 818 | 1,625 | 1,711 |
| Naushahro ..... | 2,717 | 1,109 | ... | ... | 1,114 | 919 | 1,356 | 1,392 |
| Hyderabad ..... | 12,667 | 11,250 | 8,067 | 5,424 | 218 | 200 | 605 | 666 |
| Jerruck ..... | 3,319 | 2,913 | 596 | 253 | ... | ... | 638 | 558 |
| Total ... | 19,459 | 15,407 | 8,663 | 5,677 | 2,264 | 1,937 | 4,224 | 4,327 |

111. A comparative statement of the grazing returns of the Province is as follows :—

| Name of Division. | Grazing Fees. | |
|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. |
| Sukkur ... ... ... ... | 20,041 | 15,681 |
| Naushahro ... ... ... ... | 11,818 | 8,867 |
| Hyderabad ... ... ... ... | 13,344 | 12,194 |
| Jerruck ... ... ... ... | 15,484 | 11,599 |
| Thar and Parkar ... ... ... | ..... | 4,611 |
| Total ... | 60,687 | 52,952 |

112. If the standard for fifteen months be taken at 60,687 the revenue for the 12 months under report ought to be 48,550, whereas it is Rs. 4,402 more. The returns from this source, however, are capable of further improvement, and

every effort will be made to carry out this improvement if possible; but taking a census of the cattle is first necessary to ascertain how much revenue should be expected, and this can only be done by employing very considerable pressure, because a census has been attempted departmentally under ordinary means and has failed. Only heavy punishments in a Court of law would compel people to assist in a census. But such a course is scarcely necessary perhaps, when a comparison is made witht he grazing returns in the other three Circles in Bombay and other Provinces. The following are the figures :—

| Name of Forest Department. | Revenue from grazing per square mile. |
|---|---|
| Burma (Lower and Upper) ... ... ... ... Rs. | ..... |
| Punjab ... ... ... ... ... ... ,. | 123 12 11 |
| Assam... ... ... ... ... ... ... ,, | 0 10 0 |
| Coorg ... ... ... ... ... ... ... ,, | 2 9 9 |
| Northern Circle, Bombay ... ... ... ... ,, | 16 13 3 |
| Central Circle, Bombay ... ... ... ... ,, | 66 5 1 |
| Southern Circle, Bombay ... ... ... ... ,, | 22 10 10 |
| Sind Circle, Bombay ... ... ... ... ... ,, | 61 14 10 |

It will be seen that Sind stands third on the list.

113. The number of cattle which grazed in the forests on payment and free amounted to 541,360.

114. The area under cereal cultivation and the amount realised by assessment in each Division is given in the following statement :—

| Division. | Area under cultivation. | | | | Amount realised by assessment. | | | |
|---|---|---|---|---|---|---|---|---|
| | Kharif. | | Rabi. | | Kharif. | | Rabi. | |
| | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. |
| Sukkur ..... | 479 | 513 | 2,523 | 1,953 | 1,091 | 1,596 | 10,408 | 8,004 |
| Naushahro ..... | 240 | 453 | 2,668 | 2,290 | 636 | 1,305 | 7,925 | 7,178 |
| Hyderabad ..... | 146 | 105 | 1,027 | 1,022 | 542 | 166 | 2,994 | 651 |
| Jerruck..... | 379 | 219 | 53 | 59 | 1,438 | 672 | 137 | 150 |
| Total ... | 1,244 | 1,290 | 6,271 | 5,324 | 3,707 | 3,739 | 21,464 | 15,983 |

115. It has always been the practice for years past to grant land for cultivation in forest limits as a reward to those men who render the Forest Department aid in various ways.

## CHAPTER IV.

### Financial Results.

Receipts and Expenditure.

116. The following is a comparative statement of receipts and expenditure for the financial years 1892-93 and 1893-94 :—

| | Actuals, 1892-93. | Actuals, 1893-94. | Increase. | Decrease. |
|---|---|---|---|---|
| | Rs. | Rs. | Rs. | Rs. |
| Receipts ... ... ... | 6,81,223 | 6,88,796 | 7,573 | ..... |
| *Expenditure—* | | | | |
| *A.*—Conservancy and Works ... | 3,66,488 | 3,45,952 | ..... | 20,536 |
| *B.*—Establishment ... ... ... | 98,765 | 1,06,597 | 7,832 | ..... |
| Total Expenditure ... | 4,65,253 | 4,52,549 | ..... | 12,704 |
| Net Revenue ... | 2,15,970 | 2,36,247 | 29,277 | ..... |

117. The figures for the forest year are as follows :—

| | 15 months actuals', 1892-93. | 12 months actuals', 1893-94. | Inrease. | Decrease. |
|---|---|---|---|---|
| | Rs. | Rs. | Rs. | Rs. |
| Receipts ... ... ... ... | 7,91,031 | 6,79,251 | ..... | 11,780 |
| *Expenditure—* | | | | |
| *A.*—Conservancy and Works ... ... | 4,19,135 | 3,50,195 | ..... | 68,940 |
| *B.*—Establishment ... ... ... | 1,25,196 | 1,08,274 | ..... | 16,922 |
| Total expenditure ... | 5,44,331 | 4,58,469 | ..... | 85,862 |
| Net revenue ... | 2,46,700 | 2,20,782 | ..... | 25,918 |

118. The financial year's results show a surplus of Rs. 2,36,247 (or Rs. 20,277 more than in 1892-93) which gives a net revenue of 6 annas per acre. The results of the forest year are a net revenue of Rs. 0-5-7 per acre.

119. It is interesting to note that the net revenue from the Sind Forest is higher than in any other Circle in Bombay, or in any Province under the Government of India, probably higher also than in any Circle in Madras, but figures for that Presidency are not at hand. The following statement shows the net revenue of the different Provinces taken from the annual reports for 1892-93 :—

| Name of Province. | Net revenue per acre. | Remarks. |
|---|---|---|
| | Rs. A. P. | |
| Burma ... ... ... | 0 2 9 | |
| Punjab ... ... ... | 0 1 11 | |
| Assam ... ... ... | 0 0 4 | |
| Coorg ... ... ... | 0 3 0 | |
| Northern Circle, Bombay ... | 0 5 11 | |
| Centeral ... ... ... | 0 0 11 | |
| Southern ... ... ... | 0 2 5 | |
| Sind ... ... ... ... | 0 6 3 | |

120. It ought to be mentioned that a certain portion of the net revenue derived in Sind is from the royalty obtained on wood taken from the waste lands and sold to the railway; but the value of this is very small, indeed, and scarcely worth mention.

121. The following table shows the revenue and outstandings at the end of the period under report as well as at the end of the financial year :—

| Division. | Revenue. | | Outstandings. | |
|---|---|---|---|---|
| | Forest year. | Financial year. | Forest year. | Financial year. |
| | Rs. | Rs. | Rs. | Rs. |
| Sukkur ... ... ... | 2,05,535 | 2,16,540 | 27,815 | 115 |
| Naushahro ... ... | 1,06,061 | 1,04,465 | 1,101 | 849 |
| Hyderabad ... ... | 2,12,201 | 2,02,703 | 4,497 | 843 |
| Jerruck ... ... ... | 1,44,847 | 1,55,972 | 5,364 | 3,330 |
| Thar and Parkar ... ... | 10,607 | 9,116 | 138 | 819 |
| Total ... | 6,79,251 | 6,88,796 | 38,915 | 5,956 |

122. Government, in para. 28 of their Resolution No. 5385 of the 23rd June 1894, on last year's report, stated that the financial results in Sind were not satisfactory, and although this at first sight may appear to be the case, still, when the matter is properly explained, this view of the situation, it is hoped, will be modified. The net revenue of the Circle last year, as will be seen, was the highest in India. A factor of the greatest importance and which speaks for itself. Expenditure, it is true, was high as compared to revenue but the expenditure in 1892-93 was as follows :—

| | | | |
|---|---|---|---|
| A. | Conservancy and Works | ... Rs. | 3,66,488 |
| B. | Establishment | ... „ | 98,765 |
| | | Total Rs. | 4,65,253 |

which shows that the cause for heavy expenditure was due to cost of works in connection with the exploitation of the forests. A very large proportion of the material disposed of in Sind is supplied to the North-Western Railway, and to obtain a surplus of Rs. 12 per stack of wood Rs. 27 on an average have to be spent, which shows the percentage of expenditure against revenue to be 69. If the Forest Department continue their supplies under the present system, namely, of securing Rs. 12 royalty on each stack over and above the actual cost of cutting and delivery of wood (which arrangement was settled by Sir Charles Pritchard at a Conference held at Sukkur in 1889) this high expenditure will always be maintained.

123. The great feature about the heavy expenditure in Sind, however hitherto has been that it has enabled the resources of the forest to be developed to a very great extent (31 cubic feet of wood per acre was extracted in 1892-93 as against very small amounts in the other Circles, *vide* para. 107.) Formerly the development of the resources of the forests, however, had to be encouraged, and it was necessary to bring material to the doors of purchasers at Government expense; but now and for the past ten years the demands have increased so enormously that the Forest Department can, it is thought, afford to ask purchasers to come to them for fuel and timber in forests, and this plan is being resorted to wherever possible. For instance, a minor arrangement is just being entered into with the railway for the supply of three laks cubic feet of fuel from the forests through a contractor on the following terms :—

124. The Forest Department will cut the wood, say, at Rs. 12 per 1,000 cubic feet, and sell it to the contractor for Rs. 24, causing expenditure to be Rs. 50 per cent. The contractor will convey the wood at his own expense and sell it to the North-Western Railway at Rs. 46, the latter is a rate accepted by the railway for the supply of wood by Government Agency; but a glance at the arrangement will show that if the Forest Department supplied the wood to the railway, that is, carried it themselves and delivered it to that body through Mr. Clarkson, and were paid for it by book transfer, expenditure necessary to be incurred to obtain a profit of Rs. 12, would be Rs. 12 for cutting plus Rs. 22 for boating, namely, Rs. 34, or 74 per cent. against the revenue; whereas supplying it through the contractor in the manner explained means 26 per cent. less expenditure. In this manner it is hoped charges will be kept down generally.

# CHAPTER V.

## Forest Administration.

Controlling Staff.

125. Forest administration was carried out during the year by Mr. Hexton, Deputy Conservator of Forests, Sind Circle, and the following officers :—

| Name. | Division. | From | To | Remarks. |
|---|---|---|---|---|
| Mr. J. Baptista ... ... | Sukkur ... | 1st July 1893 ... | 25th August 1893. | |
| „ G. M. Ryan ... ... | „ ... | 26th August 1893... | 24th April 1894. | Mr. Tuljaram, Extra Assistant Conservator of Forests served as an assistant to Mr. Ryan during the year. |
| „ B. H. Dalal ... ... | „ ... | 25th April 1894 ... | 30th June 1894. | |
| „ O. L. H. Napier ... | Naushahro ... | 1st July 1893 ... | 30th June 1894. | |
| „ Showkiram Pribdas ... | Hyderabad... | Do. ... | Do. ... | |
| „ G. M. Ryan ... ... | Jerruk ... | Do. ... | Do. ... | |

126. The normal strength of the controlling staff is a Deputy Conservator with five assistants, two being on the upper controlling staff.

127. Mr. Hexton proceeded on 2 monts and 28 days' privilege leave on the 28th June 1894, and Mr. G. M. Ryan acted as Deputy Conservator of Forests, Sind Circle, in addition to his own duties as Divisional Forest Officer, Jerruck. Messrs. Ryan, Napier and Showkiram remained in charge of their respective Divisions throughout the year.

128. Mr. Baptista, Extra Assistant Conservator of Forests, was in the Circle in the early part of the year in charge of the Sukkur Division; but he proceeded on two months' privilege leave on the 25th August 1893, and on his return (25th October 1893) was not allowed to reassume charge of Sukkur, because of being considered quite unfit for such independent charge. He was accordingly placed under the orders of Mr Ryan, Divisional Forest Officer, Jerruck, who was appointed to the charge of Sukkur in addition to his own duties from the date Mr. Baptista proceeded on leave. Mr. Ryan, therefore, from the 26th August 1893 was in charge of Sukkur and Jerruck with Mr Tuljaram as an Assistant, and from 27th November 1893 he had Mr. Baptista also as an Assistant till Mr. Dalal came (25th April 1894), when the charge of Sukkur was given up to him.

129. Mr. Baptista was reduced to the rank of Ranger (17th March 1894) for insubordination and general misconduct (*vide* Government Resolution No. 2026 of the 17th March 1894), and subsequently of his own accord resigned the service.

Executive and Protective Staff.

130. There are five Rangers, 18 Foresters, 306 Forest Guards on the permanent establishment, and 11 Forest Guards on the temporpary staff.

131. The area of forest each Forest Guard is under the necessity of looking after is, therefore, 1982 acres. The permanent protective and office staff are maintained at a cost of Rs. 47,332 (1892-93), and if compared with the establishment kept in the adjacent Province, namely, the Punjab, where the amount of work required to be done by the subordinates must be the same as in Sind, judging from the quantity of material extracted per acre (*vide* para. 107) the cost of maintenance of the protective and office staff proportionately would need augmenting in Sind to Rs. 75,000 a year.

Poona College Students.

132. Two students passed through the Poona College and reported themselves for duty and with the sanction of Government (Resolution No. 2356, of the 31st Mach 1894) were appointed forest apprentices on Rs. 20 per mensem, pending being permanently attached to the department. There are now in all 8 men serving in Sind who have passed through the Poona College and who are all doing well except one who was reported on as being very lazy.

Conduct of Executive Staff.

133. It is a pleasure to report that the general conduct of all the Range Forest Officers in the Circle was satisfactory with one exception, and that was in the Jerruck Division, where a Range Forest Officer was reduced for neglect of duty under Mr. Hexton's orders.

Conduct of the Protective Establishment.

134. Among the members of the protective staff one ghat munshhi was dismissed for suspected dishonesty in connection with the collection of revenue at the Shikarpur Ghat (see para. 64) and another was convicted of misappropriation of Government funds at the same place and sentenced to 9 months' rigorous imprisonment.

Divisional Forest Officers.

135. Mr. Napier, in charge of Naushahro, who joined the Forest Department on the 21st December 1891, passed all the examinations required for promotion to the rank of Assistant Conservator, 1st Grade, by October 1893, and was accordingly promoted to that grade from 12th April 1893. He has, it will be seen, qualified very quickly and has proved himself to be an active and capable Forest Officer.

136 Mr. Dalal, who joined the Sind Circle on the 25th April 1894, has worked hard and well, and considering that Sukkur is his first independent charge, he has shown tact and care in its management.

137. Messrs. Shoukiram, in charge of Hyderabad, and Tuljaram, Extra Assistant Conservator of Forests, Jerruck, have both given satisfaction in the performance of their duties.

Conduct of office establishment.

138. The office establishment, which consists of 1 Accountant, 1 Head Clerk, 1 Assistant and 1 Vernacular Munshi, has done exceedingly well during the year. The Accountant, Mr. Parmanand, and Head Clerk, Mr. Parmanand, especially, are deserving of mention.

General remarks.

139. The lands proposed for forests under section 4 in Thar and Parkar amount to 186 square miles, and are under the management of the Revenue Department. The total revenue from these proposed forest lands for the forest year amounted to Rs. 10,607, and expenditure to Rs. 4,426, showing a percentage of surplus over gross revenue of 57, which is s tisfactory. The receipts and expenditure are credited and debited respectively to forest accounts, which are submitted to the Deputy Conservator, who is the controlling officer, for the purpose of carrying out the provisions of the Forest Department Code. Details of management, and the amount of material extracted per acre are not available for inclusion in this report.

140. Mr. Hexton inspected the important forest in each Division and examined all the offices of the Divisional Forest Officers during the year. He has left no remarks on record regarding the administration, hoping to have written this report himself after his return from leave (25 September 1894), but ill-health unfortunately prevented him from carrying out his intention, and it is with much sorrow that his melancholy death, on the 10th instant, has to be reported.

G. M. RYAN,
Acting Deputy Conservator of Forests,
Sind Circle.

No. 4961 OF 1894.

REVENUE DEPARTMENT.

*Commissioner's Office,*
*Karachi, 30th November 1894.*

*Review of the Forest Administration Report for the year ending 30th June 1894.*

In forwarding the accompanying report to Government, the Commissioner in Sind, while regretting that it should be a little late, has the honour to explain that at first it was hoped the late Mr. Hexton might be able to write, or at least to revise it, but this hope proved delusive, so, at the Commissioner's suggestion, Mr. Ryan undertook and completed it, though he was not actually in charge of the circle between Mr. Hexton's arrival and his death; and, though working under many difficulties, the Commissioner considers he has executed his task in a creditable manner.

2. The area added to Sind Forests was 1,074 acres in the Ghotki Taluka, and 117 acres of protected forest were given up to cultivation in the Jerruck Division. There were also 2 acres of the Gaji Dero Reserved Forest handed over to the Public Works Department during the year, but as they have not been formally disforested, they are not omitted in the return. The total area included in reserved forests is 976 square miles and 483 acres, and 4 square miles and 555 acres in protected forests. It must be noted, however, that up to the 30th June, 35,169 acres, notified during the year, and 33,681 acres, notified during the years 1886-93, under Section 4 of the Forest Act were awaiting final disposal, and 30,000 acres in the Kashmor Taluka were notified shortly after the conclusion of the year. The Forest Settlement Officer, who was appointed in October 1892, and took up his new duties on 23rd November, will submit a detailed report of his work as promised in the Commissioner's letter No. 2644 of 6th July 1894, after his duties are completed. Consequently no account of the work he has done has been embodied in the Administration Report. He was originally appointed for two years, ending with November 22nd 1894. His term of office was extended to December 31st, by Government Resolution No. 6145 of 20th July 1894, and the Commissioner has asked that it may be further extended for a little time beyond the 31st December, say, to the end of March 1895, in order that the areas notified under Section 4 may be settled by Mr. Barrow, though he will not, even then, have time to demarcate all the new areas. The Commissioner anticipates that a little over a lakh of acres will have been added to the forest area by that time.

3. It was estimated that 668 acres, were lost, mostly by erosion, and that 11,803 acres were added by the vagaries of the river. The former figure is probably fairly accurate, the latter is merely a guess-work estimate of kacha land which may not be serviceable for some years, and is very liable to be eroded again. Mr. Ryan pleads for more surveyors to map out and measure these areas. This may or may not be necessary, but should form the subject of a separate reference. The eroded portions have in many cases been already surveyed, and the exact area is known. As for new kachas, the Commissioner does not see any need for sub-dividing them till they are sufficiently established to carry boundary marks which will not be washed away, but it is of great importance that their outer boundaries should be mapped and made secure from encroachment by cultivators. This, however, is a question of administration in which the Superintendent, Land Records and Agriculture, will probably be able to help, but it need not be discussed in an administration report. Mr. Ryan also discusses the oft-repeated theme that the river embankments are injurious to inland forests, and that as the Sind Forest Department has earned profits of 42·5% on the capital expended on it during the past 22 years, the extension of forests is desirable. But anything heroic in the way of bund-making is out of the question, and the section and alignment of river bunds depends on a great many

other things besides forests. The Irrigation Department is only too happy when it can find a forest behind which it can establish a bund, though even in such cases the result is not always satisfactory.

4. The forest areas are divided as far as possible into square blocks of 160 acres, which are sometimes, if very thick, sub-divided into blocks of 40 acres. This important work appears not to be progressing so fast as is to be desired. Only 72 miles of rides, from 15 to 30 feet wide, have been cut during the year at a cost of Rs. 1,060. In fact, only 9,000 acres out of 1½ lakhs that still remain, mostly in Sukkur and Naushahro, were so treated. The regular cutting of coupés in their turn is often seriously interfered with by the action of the river, and this makes the adherence to any plan rather difficult. In some places timber has to be cut at short notice to prevent its being lost by erosion. In another part the setting of the river prevents boats from reaching a coupé which was intended for cutting, and it has to be left, as the cost of carriage to the water-side is too great. The account of what has actually been done according to the working plan is, however, not very lucid. The fault, if there has been any in the past, is that the Forest Department has cut all the nearest forests to the railway and has now only distant ones to go to, the carriage from which is expensive.

5. The remarks further on in the report on "the improvement of forest growth" fill a large number of paras. full of information, but more suitable for a gazetteer than an administration report. It appears that, in view to aiding natural reproduction some 2,300 maunds of babul and kandi seed were collected and sown over 12,000 acres mostly in Upper Sind. A few hundred acres of tali trees would be very valuable. Next year, the Deputy Conservator will, it is hoped, give more information as to the actual measures taken for artificially extending forests, especially as to the sowing of the bare patches which ought to be in the course of gradual resumption from the cultivators. The remarks regarding the utility of the "ak" plant are interesting. Its fibre is well known to be extremely valuable, but the extraction of it is most expensive, and it is doubtful whether any machine could be made to peel its irregular woody stems. However, there is no objection to Mr. Ryan making an experiment with it in his leisure hours.

6. The number of forest cases taken before Magistrates was 48 for 12 months, which is a slight increase on the previous year's figure, 50 for 15 months. The percentage of convictions is much the same. The one serious case mentioned of theft of timber occurred in 1892-93, but was disposed of during the year under report. The decrease in the number of cases of illicit grazing compounded under the Forest Act, allowing for the difference of time with which the two years' reports deal, is remarkable in every division except Jerruck, where the number is much the same as in 1891-92. In Hyderabad they fell from 243 to 54, and in Sukkur to 606 from 1,199. Even though no explanation is given, the Commissioner attributes this result to the Forest Department having treated the people adjoining the forests with consideration in accordance with the orders of Government. Similarly with thefts, these have fallen from 175 to 23 in Sukkur, and from 34 to 4 in Jerruck. On the other hand the number of cattle impounded is proportionately larger though not to any great extent, in the year under report than in the last, *viz.*, 25,857 against 21,671. The number of cattle found trespassing in closed areas was 15,986 compared with 14,129. From the latter figures it seems probable that illicit grazing has not declined, and it is possible, judging by the remarks on the conduct of forest guards in para. 76 and 77 of the report, that they are responsible for the decrease in the figures under the head of "illicit grazing." The grazing fees are low in Sind, and the penalties for infringing rules are light. But the Commissioner will enquire whether the recent orders of the Government of India require any supplementing. Para. 77 of the report shows that the Forest Department's relations with those who live in the forests are on a good footing.

7. The floods are held responsible for the increase in the number of forest fires, as the coarse grass that springs up becomes like tinder when the ground dries, and, as usual, there were many more in the Sukkur Division than else-

where. Only in one case detection followed, and this was still undisposed of. Probably most of them are accidental. When it is suspected that forest grass has been fired in order to obtain a supply of succulent young shoots, the plan adopted in the Jerruck Division of closing the burnt area to grazing, may after a time have the desired effect.

8. The record of the year from a financial point of view shows an improvement on 1892-93. The gross receipts, Rs. 6,88,796-4-10, were Rs. 7,573 larger, and the total expenditure, Rs. 4,52,549-3-6, was Rs. 12,704 less than that of 1892-93. The net revenue was Rs. 2,36,247-1-4 as compared with Rs. 2,15,970 in 1892-93. The receipts from timber and grazing fees were higher and those from firewood and charcoal (by far the largest item of income) and minor produce, were lower than in the previous year. The expenditure on works and conservancy, Rs. 3,45,952, was lower than the figures for 1892-93, Rs. 3,66,488. Owing to the increasing demand for wood, the Deputy Conservator states that the plan of making purchasers arrange for their own cutting and delivery, that is, of buying the wood as it stands, appears to be more feasible than formerly. This will reduce the working expenses. At present the North-Western Railway is by far the largest purchaser, and under the existing arrangements the Department undertakes the cutting and delivery for them, the charges for which are bound to increase as the more accessible forests are worked out, as they certainly have been to some extent. The small decrease in working expenses is probably due to the smaller purchases of the North-Western Railway mentioned below more than anything else. The Deputy Conservator alludes, in para. 69, to a saving of Rs. 17,273 made by the departmental system, which really means the employment of petty contractors under the Range Forest Officers, who, by a system of advances, get the wood cut more cheaply than it used to be through large contractors. This system is still on its trial, and the Commissioner will say no more about it in this place, except that he hopes Mr. Desai will thoroughly test it and its financial results, as a system of giving large advances through subordinates will at any rate require careful supervision and check of a very special character.

9. The Commissioner cannot help observing in this place that the different systems of working Forests in Sind and other places rather handicap the Sind Forests when the financial results are compared. If a coupé in Thana is to be cut, the standing timber is sold to a Bombay borah, who cuts and removes it on his own account, and the net sum, say, Rs. 2,000, is credited to the Forest Department with little or no expenditure *per contra*. In Sind, owing to circumstances which need not be gone into, the Department cuts, divides into lengths, trims, conveys and delivers the timber to the purchasers, the principal of whom is the railway. Its net profit is perhaps more than in Thana, but it has to show in its accounts Rs. 6,000 as expended and Rs. 9,000 as received. Thus, though the net Sind revenue is larger, its expenditure appears very high and has to be budgetted for. Were the Deputy Conservator merely given an adequate permanent advance, to be reduced as he sees his way to employing contractors, the expenditure and net revenue of Sind would compare very favourably with any Forest Circle in India.

10. The total yield under the heads of timber, firewood and charcoal in the past three years has been—

| | | 1891-92. | 1892-93. 15 months. | 1893-94. |
|---|---|---|---|---|
| Timber ... ... | ...C. ft. | 239,730 | 250,520 | 269,146 |
| Firewood and charcoal ... | ... „ | 17,926,261 | 19,686,534 | 17,781,588 |
| Firewood ... ... | ...Mds. | 3,008,027 | 3,133,741 | 2,627,275 |
| Charcoal ... ... | ... „ | 58,677 | 75,267 | 91,922 |

It appears from these figures that the outturn of timber has been steadily increasing, also that of charcoal, but there has been a sensible decline in the yield of firewood, though it is slightly better in 1893-94 than in 1892-93. Turning to the tables in an earlier part of Chapter III, it seems that the outturn of posts and rafters has declined, and that it is the outturn of timber proper,

including sleepers, that has risen. The number of cubic feet of timber disposed of during the past three years has been—

| 1891-92. | 1892-93 (15 months). | 1893-94. |
|---|---|---|
| 40,033 | 53,274 | 64,204 |

The remark that the increase is due to sales in Upper Sind does not appear altogether correct. The sales at Rohri and Shikarpur, which form a very small part of the total disposed of, have increased, it is true, from 1890 to 3,434, and from 176 to 1,143 respectively. The sales at Sukkur have decreased. The increase of the year is principally at Hyderabad, where the figures for the past three years have been 3,380, 13,884 and 19,826 cubic ft. The balance in stock at depôts at the end of the year was under the mark, except under the head of timber, which has increased, especially at Sukkur. The Deputy Conservator states that where the "share" system exists, careful watch is kept to prevent the overstocking of depôts.

11. The principal purchaser of firewood, as usual, is the North-Western Railway, but this has taken only 1,283,054 maunds compared with 1,863,527 maunds in 1891-92, and *1,692,215 in 1892 93. It is admitted that the Forest Department cannot meet the demands of the railway and it only supplied half the quantity indented for. The Commissariat Department took more, and a new purchaser, cotton ginning-engines, is entered, to whom 200,700 maunds were sold. It is hoped that the additional area which is being granted to the Forest Department will place them in a little better position; but as they have been allowed to cut freely even in areas not under their charge, it would be too much to expect any great difference for some little time. The Commissioner would like to see the details of the figures given in para. 88, as his impression is, that a good deal more must be cut in "revenue jungles" than that paragraph admits. The depletion of the forests, is indeed, a matter of grave concern, and the North-Western Railway must be prepared to pay higher if they continue to burn wood, until the nearer forests have recovered. It is to be hoped, however, that the produce of some of the Khairpur jungles will soon be at their disposal, which will relieve the strain on the Government Forests and after all the prices which the North-Western Railway will have to pay will be less than they pay for fuel elsewhere on occasions. The employment of a European contractor for delivering to the railway, who is capable of dealing with the European railway officials, has worked, it is stated, very well, and prevented the friction which the employment of Range Forest Officers on the duty was sure to give rise to. It is very satisfactory that the railway administration showed itself willing to aid itself, by employing one of its laid-up-steamers, Tug D, to bring up fuel from the Jerruck forests below Kotri. This arrangement should be continued. The Commissioner believes also he has shown that if a light railway (the proposals for which are before Government) were made from Jungshahi to Tatta and the River Bank beyond, the branch railway would pay well by supplying fuel to the main North-Western Railway alone, and enabling the Delta Forests to be exploited. Unquestionably the highest public interests are served in giving cheap fuel to the railway. As British Baluchistan depends on Sind for its fuel, the Commissioner has directed separate forests near Rohri to be reserved for that purpose exclusively. He is also carefully reserving about 27,000 acres of land on the line between Ruk and Jacobabad which will one day be irrigated and give a magnificent yield of fuel and timber for the same object.

12. The revenue derived from grazing fees really shows an improvement on the year 1892-93, taking the difference of 3 months into consideration, but they are less than the receipts of 1890-91 and 1891-92. A census of animals has been made during the past 3 years. Some of the figures, *viz.*, of animals grazing in the forests are obtained from Forest Officers. The Commissioner cannot hope that they are very accurate, but they might be of some use in checking the number of animals belonging to villages which have the privilege of free grazing.

*This is for 15 months. Four-fifths of this is 1,353,772.

13. The area under cereal cultivation during the 12 months in 1893-94, amounted to acres 6,614, as against acres 7,515, during the 15 months in 1892-93. The assessment realised during the two periods was Rs. 19,722 and Rs. 25,171, respectively. The figures for 1893-94 show a decrease both as regards cultivation and revenue, but they appertain to a period shorter by 3 months. The Commissioner is of opinion that the cultivation of cereals within forests should be discouraged as much as possible, and in special cases where permission to cultivate is granted it should be given to *bunnyadi* zamindars in the deh and not to outsiders.

14. With the exception of one officer who subsequently resigned the service, the Commissioner has much pleasure in stating his satisfaction at the manner in which the Department has been administered, and in concluding would again deplore the loss the Province has sustained by the recent death of Mr. Hexton, who spent most of his service in Sind, and was head of the Department during the past 4½ years.

15. The report should in future be indexed and the contents of each paragraph given in the margin, for facility of reference.

16. The Commissioner will only conclude with an expression of the hope that the Conservator's appointment may be recreated, as every year the Department in Sind becomes more important and more difficult to administer.

J. SLADEN,
*for* Commissioner in Sind.

# STATEMENT A.

## Areas notified under Section 4 of the Forest Act since 1886.

| Name of Forest Block. | Taluka. | Area. | Year in which notified. |
|---|---|---|---|
| | | A. g. | |
| Khairwah ... | Jacobabad ... | 56 30 | 1886. |
| Gokalpur ... | | 64 30 | |
| Tarai ... | Naushahro Abro ... | 2,349 5 | 1887. |
| Changa Rahuja ... | | 1,749 35 | |
| Choi ... | | 3,132 20 | |
| Adamji ... | | 4,352 25 | |
| Phobyari ... | | 743 4 | |
| Mastikhan ... | | 225 0 | |
| Kacho Khanote ... | Halla ... | 2,880 0 | 1890. |
| Butto or Kacho Lakha ... | Manjhand ... | 579 0 | 1892. |
| Sangi Kotai ... | Ghotki ... | 33 26 | 1894. |
| Hingoro ... | | 151 35 | |
| Khan Belo ... | | 28 30 | |
| Lalu Wali ... | | 856 20 | |
| Bandh ... | | 1,066 15 | |
| Sangi Ghotki ... | | 1,811 27 | |
| Sarhad ... | | 164 10 | |
| Satalio Biavo ... | | 320 34 | |
| Atal Muradani ... | | 1,170 28 | |
| Dosu Darro ... | Ratodero ... | 1,104 24 | 1893. |
| Bindi Kham ... | | 3,435 0 | |
| | | 25 0 | |
| Do. ... | Larkana ... | | |
| Kacho Akil ... | Do. ... | 1,759 0 | 1893. |
| Abrepota ... | Labdaria ... | 1,309 13 | 1893. |
| Kacho Beli Gaji ... | | 1,127 15 | |
| Lundi ... | Kandiaro ... | 790 30 | 1893. |
| Musodero ... | | 568 30 | |
| Kacho Bhand Mari ... | Naushahro ... | 565 0 | 1893. |
| Abad ... | | 2,183 0 | |
| Kacho Bindi Sono ... | | 1,227 0 | |
| Kot Dhingano ... | Sakrand ... | 124 15 | 1893. |
| Lakhat ... | | 393 0 | |
| Kacho Lakha ... | | 590 0 | |
| Bahawalshah ... | | 1,517 0 | |
| Mad ... | | 583 0 | |
| Mehrabpur ... | | 1,028 0 | |
| Nakur ... | | 331 3 | |
| Amin Lakho ... | Halla ... | 589 6 | 1893. |
| Kunor ... | | 1,745 14 | |
| Rishal ... | | 678 3 | |
| Kari ... | | 3,205 35 | |
| Bhanote ... | | 1,178 28 | |
| Shorki ... | | 2,181 37 | |
| Ghotano ... | | 1,409 12 | |
| Salaro ... | | 1,535 29 | |
| Khandu ... | | 813 4 | |
| Murid Rais ... | | 2,901 0 | |
| Ali Bahar ... | Sujawal ... | 1,036 11 | 1894. |
| Samaki ... | | 776 32 | |
| Belo ... | | 431 11 | |
| Kot Almo ... | | 3 30 | |
| Jorar ... | Mirpur ... | 1,970 21 | 1894. |
| Miranpur ... | | 914 8 | |
| Dhand Khad ... | | 2,679 28 | |
| Achh ... | | 1,048 34 | |
| Achh Marho ... | Shahbander ... | 1,970 22 | 1894. |
| Alahbux Shah ... | | 1,421 39 | |

G. M. RYAN,

Acting Deputy Conservator of Forests,

Sind Circle.

B.

STATEMENT showing the classification of cases compounded under Section 67 of the Indian Forest Act.

| Division. | For misappropriation of | | | For. | Total. | Number of cases in which compensation was accepted. | Amount realized. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | (*a*) Timber. | (*b*) Firewood. | (*c*) Minor Forest Produce. | (*d*) Other offences. | | | | |
| | | | 1892-93 (15 months). | | | | | |
| Sukkur ... ... ... | 156 | 3 | 16 | 1 | 176 | 176 | 437 0 0 | |
| Naushahro ... ... ... | 10 | 12 | 31 | 1 | 54 | 54 | 148 0 0 | |
| Hyderabad ... ... ... | 16 | 16 | 69 | ... | 101 | 101 | 385 0 0 | |
| Jerruck ... ... ... | 3 | ... | 16 | 16 | 35 | 35 | 62 0 0 | |
| Total ... | 185 | 31 | 132 | 18 | 366 | 366 | 1,032 0 0 | |
| | | | 1893-94 (12 months). | | | | | |
| Sukkur ... ... ... | 10 | 8 | 5 | ... | 23 | 23 | 44 0 0 | |
| Naushahro ... ... ... | 18 | 20 | 22 | ... | 60 | 60 | 153 0 0 | |
| Hyderabad ... ... ... | 20 | 14 | 49 | ... | 83 | 83 | 323 0 0 | |
| Jerruck ... ... ... | 1 | ... | 3 | 1 | 5 | 5 | 8 0 0 | |
| Total ... | 49 | 42 | 79 | 1 | 171 | 171 | 528 0 0 | |

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

B.

STATEMENT showing the amount accepted as compensation up to rupee 1 and upwards, in cases compounded under Section 67 of the Forest Act.

| District. | Name of Divisions. | Fines inflicted | |
|---|---|---|---|
| | | No. of cases. | Amount. |
| Upper Sind Frontier | Sukkur | 3 | Up to Re. 1 |
| | | 1 | „ Rs. 4 |
| | Total ... | 4 | |
| Shikarpur | Do. ... | 15 | „ Re. 1 |
| | | 3 | „ Rs. 3 |
| | | 1 | „ „ 18 |
| | Naushahro | 18 | „ Re. 1 |
| | | 3 | „ Rs. 2 |
| | | 2 | „ „ 3 |
| | | 2 | „ „ 4 |
| | | 2 | „ „ 5 |
| | | 1 | „ „ 7 |
| | | 1 | „ „ 9 |
| | | 2 | „ „ 10 |
| | Total ... | 50 | |
| Hyderabad | Naushahro | 11 | Up to Re. 1 |
| | | 5 | „ Rs. 2 |
| | | 3 | „ „ 5 |
| | | 1 | „ „ 7 |
| | | 2 | „ „ 8 |
| | | 1 | „ „ 15 |
| | Hyderabad ... | 5 | „ Re. 1 |
| | | 22 | „ „ 2 |
| | | 6 | „ „ 3 |
| | | 2 | „ „ 4 |
| | | 3 | „ „ 5 |
| | | 3 | „ „ 6 |
| | | 1 | „ „ 7 |
| | | 2 | „ „ 8 |
| | | 1 | „ „ 12 |
| | Total ... | 68 | |
| Karachi | Naushahro | 3 | „ Re. 1 |
| | | 2 | „ Rs. 3 |
| | | 1 | „ „ 6 |
| | Hyderabad | 3 | „ Re. 1 |
| | | 3 | „ Rs. 2 |
| | | 4 | „ „ 3 |
| | | 6 | „ „ 4 |
| | | 14 | „ „ 5 |
| | | 1 | „ „ 6 |
| | | 5 | „ „ 8 |
| | | 2 | „ „ 10 |
| | Jerruck | 3 | „ Re. 1 |
| | | 1 | „ Rs. 2 |
| | | 1 | „ „ 5 |
| | Total ... | 49 | |
| | Grand Total ... | 171 | |

G. M. RYAN,
Acting Deputy Conservator of Forests,
Sind Circle.

C.

STATEMENT showing the total yield of timber, firewood and charcoal in each Division.

| Division. | Timber, C. ft. | | Posts, No. | | Rafters. No. | |
|---|---|---|---|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. | 1892-93, 15 months. | 1893-94, 12 months. |
| Sukkur ..... | 25,019 | 44,495 | 14,601 | 10,192 | 75,022 | 71,672 |
| Naushahro..... | 7,706 | 8,528 | 1,422 | 35 | 27,697 | 19,119 |
| Hyderabad..... | 23,032 | 37,893 | 19,290 | 22,637 | 142,821 | 94,115 |
| Jerruck ..... | 30,194 | 25,161 | 5,413 | 1,593 | 5,916 | 16,360 |
| Total ... | 85,951 | 116,077 | 40,726 | 34,457 | 251,456 | 201,266 |

| Division. | Firewood, Mds. | |
|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. |
| Sukkur ... ... ... ... | 1,434,547 | 1,234,415 |
| Naushahro ... ... ... ... | 558,890 | 469,026 |
| Hyderabad ... ... ... ... | 900,773 | 679,019 |
| Jerruck ... ... ... ... | 239,531 | 244,815 |
| Total ... | 3,133,741 | 2,627,275 |

| Division. | Charcoal, Mds. | |
|---|---|---|
| | 1892-93, 15 months. | 1893-94, 12 months. |
| Sukkur ... ... ... ... | 2,970 | 3,500 |
| Naushahro ... ... ... ... | 11,873 | 22,541 |
| Hyderabad ... ... ... ... | 7,557 | 22,304 |
| Jerruck ... ... ... ... | 52,867 | 43,577 |
| Total ... | 75,267 | 91,922 |

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

D.

STATEMENT showing the number of cases of "Illicit grazing" disposed of during 1893-94, under the rules framed by the Commissioner in Sind.

| Division. | Number of cases. | Remarks. |
|---|---|---|
| Sukkur ... ... ... | 606 | The total number in 1892-93 (15 months) is 2061, *vide* para. 31 of the report. |
| Naushahro ... ... | 110 | |
| Hyderabad ... ... | 54 | |
| Jerruck ... ... ... | 397 | |
| Total ... | 1,167 | |

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

FORM

FOREST DEPARTMENT, BOMBAY,

*Area of Reserved*

| Divisions. | Range. | Civil District or Territory. | Name of Forest. | Area on 1st July 1893. | | Added during the year. |
|---|---|---|---|---|---|---|
| | | | | Acres. | Equivalent in square miles. | Acres. |
| Sukkur ... | Mirpur ..... | Shikarpur ... | Raoti ... ... ... ... ... | 8,129 | 12·449 | ... |
| | | | Daresh ... ... ... ... ... | 1,725 | 2·445 | ... |
| | | | Ubauro ... ... ... ... ... | 3,150 | 4·590 | ... |
| | | | Mirpur ... ... ... ... ... | 7,251 | 11·211 | ... |
| | | | Kahacki ... ... ... ... ... | 1,654 | 2·374 | ... |
| | | | Reti ... ... ... ... ... | 2,388 | 3·468 | ... |
| | | | Rangu ... ... ... ... ... | 972 | 1·332 | ... |
| | | | Narh ... ... ... ... ... | 1,376 | 2·96 | ... |
| | | | Sadrud ... ... ... ... ... | 3,529 | 5·329 | ... |
| | | | Islam ... ... ... ... ... | 2,064 | 3·144 | ... |
| | | | Johanpur ... ... ... ... | 4,340 | 6·500 | ... |
| | Sadhuja ..... | | Bahab ... ... ... ... ... | 8,985 | 14·25 | ... |
| | | | Budh ... ... ... ... ... | 1,217 | 1·5·7 | ... |
| | | | Sadhuja ... ... ... ... ... | 7,641 | 11·601 | ... |
| | | | Shahpur ... ... ... ... ... | 11,215 | 17·335 | ... |
| | | | Pawhari ... ... ... ... ... | 587 | 0·587 | ... |
| | | | Hussenbeli ... ... ... ... | 3,407 | 5·207 | ... |
| | | | Azizpur .... ... ... ... ... | 880 | 1·240 | ... |
| | | | Ding ... ... ... ... ... | 1,543 | 2·263 | ... |
| | | | Syedpur ... ... ... ... ... | 8,216 | 12·536 | ... |
| | | | Rohri ... ... ... ... ... | 22,551 | 35·151 | ... |
| | | | Sultanpur ... ... ... ... | 1,753 | 2·473 | ... |
| | | | Saliani ... ... ... ... ... | 5,014 | 7·534 | ... |
| | Ghotki ..... | | Ghotki ... ... ... ... ... | 4,200 | 6·360 | ... |
| | | | Adilpur ... ... ... ... ... | 12,683 | 19·523 | 1,0 |
| | | | Walu Mahar ... ... ... ... | 2,648 | 4·88 | ... |
| | | | Samowah .. ... ... ... ... | 2,252 | 3·332 | ... |
| | | | Wasir ... ... ... ... ... | 1,417 | 2·137 | ... |
| | | | Jarwar ... ... ... ... ... | 2,839 | 4·279 | ... |
| | | | Abad ... ... ... ... ... | 5,604 | 8·484 | ... |
| | Abad ..... | | Kadurni Bindi ... ... ... ... | 2,306 | 3·386 | ... |
| | | | Khia Bindi ... ... ... ... | 3,118 | 4·558 | ... |
| | | | Shah ... ... ... ... ... | 13,433 | 20·633 | ... |
| | | | Bindi Dhareja ... ... ... ... | 6,866 | 10·466 | ... |
| | | | Kadrapur ... ... ... ... | 2,564 | 4·4 | ... |
| | | | Mohro Mari ... ... ... ... | 11,857 | 18·337 | ... |
| | Sukkur..... | | Andaldal ... ... ... ... | 12,104 | 18·584 | ... |
| | | | Bagarji ... ... ... ... ... | 13,884 | 21·444 | ... |
| | Shikarpur ..... | | Daiswah... ... ... ... ... | 905 | 1·265 | ... |
| | | | Lakhi ... ... ... ... ... | 3,614 | 5·414 | ... |
| | | | Ghari Halim ... ... ... ... | 2,096 | 3·176 | ... |
| | | | Kot Sultan ... ... ... ... | 17,342 | 27·62 | ... |
| | | | Jamshero ... ... ... ... | 6,616 | 10·216 | ... |
| | Kashmor ..... | | Jaugan ... ... ... ... ... | 2,291 | 3·371 | ... |
| | Jacobabad, Thul.. | | Abad ... ... ... ... ... | 985 | 1·345 | ... |
| | | | Mehrabpur ... ... ... ... | 991 | 1·351 | ... |
| | | | Dilawarpur ... ... ... ... | 925 | 1·285 | ... |
| | | | Milkiat Sircar ... ... ... ... | 1,923 | 3·3 | ... |
| | | Upper Sind Frontier | Bakapur ... ... ... ... | 9,839 | 15·239 | ... |
| | | | Dilmurad ... ... ... ... | 1,141 | 1·561 | ... |
| | | | Zangipur ... ... ... ... | 5,334 | 8·214 | ... |
| | | | Sarki ... ... ... ... ... | 3,773 | 5·573 | ... |
| | | | Baluchabad ... ... ... ... | 765 | 1·125 | ... |
| | | | Korar ... ... ... ... ... | 875 | 1 235 | ... |
| | | | Mirpur ... ... ... ... ... | 6,978 | 10·578 | ... |
| | | | Karampur ... ... ... .. | 5,770 | 9·10 | ... |
| | Abad ..... | | Keti Sadhuja ... ... ... ... | 6,001 | 9·241 | ... |
| | | | **Total Sukkur Division...** | 285,526 | 446·86 | 1,074 |
| Naushahro .... | Larkana ..... | Shikarpur ... ... | Dosu ... ... ... ... ... | 4,033 | 6·193 | ... |
| | | | Keti Ubhuro ... ... ... ... | 5,575 | 8·455 | ... |
| | | | Kanuri... ... ... ... ... | 3,630 | 5·430 | ... |
| | | | Sharifpur ... ... ... ... | 1,027 | 1·387 | ... |
| | | | Bahman ... ... ... ... | 1,547 | 2·267 | ... |
| | | | Naoabad ... ... ... .. | 2,205 | 3·285 | ... |
| | | | Phati Bilawal ... ... ... ... | 711 | 1·71 | ... |
| | Tigir..... | | Amrote ... ... ... ... ... | 11,684 | 18·164 | ... |
| | | | Muso ... ... ... ... ... | 4,755 | 7·275 | ... |
| | | | Kasimshah ... ... ... ... | 2,056 | 3·136 | ... |
| | | | Nari ... ... ... ... ... | 1,419 | 2·139 | ... |
| | | | Dangar ... ... ... ... ... | 3,685 | 5·485 | ... |
| | | | Soi ... ... ... ... .. | 5,108 | 7·628 | ... |
| | | | Budo Dero ... ... ... ... | 1,555 | 2·275 | ... |
| | | | Ghangharko ... ... ... ... | 5,849 | 9·89 | ... |
| | | | Gaji Dero ... ... ... ... | 4,238 | 6·398 | ... |
| | Naushahro Abro.. | | Garhi Yasin ... ... ... ... | 25,328 | 39·368 | ... |

Karachi,
25th October 1894.

| | | | |
|---|---|---|---|
| | 8,129 | 12·449 | |
| | 1,725 | 2·445 | |
| | 3,150 | 4·590 | |
| | 7,251 | 11·211 | |
| | 1,654 | 2·374 | |
| | 2,388 | 3·468 | |
| | 972 | 1·382 | |
| | 1,376 | 2·96 | |
| | 3,529 | 5·329 | |
| | 2,064 | 3·144 | |
| | 4,340 | 6·500 | |
| | 8,985 | 14·25 | |
| | 1,217 | 1·577 | |
| | 7,641 | 11·601 | |
| | 11,215 | 17·335 | |
| | 587 | ·587 | |
| | 3,407 | 5·207 | |
| | 880 | 1·240 | |
| | 1,543 | 2·263 | |
| | 8,216 | 12·536 | |
| | 22,551 | 35·151 | |
| | 1,753 | 2·473 | |
| | 5,014 | 7·534 | |
| | 4,200 | 6·360 | |
| | 13,757 | 21·317 | No. 2286 of 29th March 1894. |
| | 2,648 | 4·88 | |
| | 2,252 | 3·332 | |
| | 1,417 | 2·137 | |
| | 2,839 | 4·279 | |
| | 5,604 | 6·484 | |
| | 2,306 | 3·386 | |
| | 3,148 | 4·558 | |
| | 13,433 | 20·633 | |
| | 6,866 | 10·466 | |
| | 2,564 | 4·4 | |
| | 11,857 | 18·337 | |
| | 12,104 | 18·584 | |
| | 13,884 | 21·444 | |
| | 905 | 1·265 | |
| | 3,614 | 5·414 | |
| | 2,096 | 3·176 | |
| | 17,342 | 27·62 | |
| | 6,616 | 10·216 | |
| | 2,291 | 3·371 | |
| | 985 | 1·345 | |
| | 991 | 1·351 | |
| | 925 | 1·285 | |
| | 1,923 | 3·3 | |
| | 9,839 | 15·239 | |
| | 1,141 | 1·501 | |
| | 5,334 | 8·214 | |
| | 3,773 | 5·573 | |
| | 765 | 1·125 | |
| | 875 | 1·235 | |
| | 6,978 | 10·578 | |
| | 5,770 | 9·10 | |
| | 6,001 | 9·241 | |
| ... | 286,600 | 447·520 | |
| | 4,033 | 6·193 | |
| | 5,575 | 8·455 | |
| | 3,630 | 5·430 | |
| | 1,027 | 1·387 | |
| | 1,547 | 2·267 | |
| | 2,205 | 3·285 | |
| | 711 | 1·71 | |
| | 11,684 | 18·164 | |
| | 4,755 | 7·275 | |
| | 2,056 | 3·136 | |
| | 1,419 | 2·139 | |
| | 3,685 | 5·485 | |
| | 5,108 | 7·628 | |
| | 1,555 | 2·275 | |
| | 5,849 | 9·89 | |
| | 4,238 | 6·398 | |
| | 25,328 | 39·368 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Naushahro—*continued.* | Kandiaro | Hyderabad | Bhaur | 10,539 | 16·299 | ... |
| | | | Mohbatdero | 8,045 | 12·365 | ... |
| | | | Samtia | 3,390 | 5·190 | ... |
| | | | Kamaldero | 1,365 | 2·85 | ... |
| | Sehwan | | Bhorti | 10,790 | 16·550 | ... |
| | | | Dalipota | 867 | 1·227 | ... |
| | | | Khairodero | 13,073 | 20·273 | ... |
| | | | Lalia | 4,192 | 6·352 | ... |
| | | Karachi | Karampur | 2,924 | 4·364 | ... |
| | | | Bagban | 1,947 | 3·27 | ... |
| | | | Bhan | 1,138 | 1·498 | ... |
| | | | Phaka | 2,207 | 3·287 | ... |
| | | | Kalubori | 748 | 1·108 | ... |
| | | | Pipri | 925 | 1·285 | ... |
| | | | Total Naushahro Division | 146,555 | 228·635 | ... |
| Hyderabad | Rano | Hyderabad | Lakhat | 6,380 | 9·620 | ... |
| | | | Nasri | 1,556 | 2·276 | ... |
| | | | Mad | 2,642 | 4·82 | ... |
| | | | Mehrabpur | 3,338 | 5·138 | ... |
| | | | Mari | 14,753 | 23·33 | ... |
| | | | Pai | 5,130 | 8·10 | ... |
| | | | Keti Jurio | 2,125 | 3·205 | ... |
| | | | Rano | 1,627 | 2·347 | ... |
| | | | Nurketi | 4,061 | 6·221 | ... |
| | Rano Miani | | Bhanote | 841 | 1·201 | ... |
| | | | Khanote | 8,666 | 13·346 | ... |
| | | | Khebrani | 760 | 1·120 | ... |
| | | | Sekhat | 2,080 | 3·160 | ... |
| | | | Jakhri | 1,926 | 3·6 | ... |
| | | | Matiari | 5,354 | 8·234 | ... |
| | | | Ghalli | 3,041 | 4·481 | ... |
| | | | Miani | 4,917 | 7·437 | ... |
| | | | Kathri | 756 | 1·116 | ... |
| | | | Gundi | 2,150 | 3·230 | ... |
| | | | Mahomed Khan | 181 | ·181 | ... |
| | Hyderabad | | Jamshoro | 292 | ·292 | ... |
| | | | Shahmakai | 314 | ·314 | ... |
| | Kotri | | Keti Mehrani | 5,523 | 8·403 | ... |
| | Unerpur | Karachi | Karokho | 1,701 | 2·421 | ... |
| | | | Gidarji | 855 | 1·215 | ... |
| | | | Butto | 7,748 | 12·68 | ... |
| | | | Manjhand | 1,539 | 2·259 | ... |
| | | | Unerpur | 10,705 | 16·465 | ... |
| | | | Ghag | 1,296 | 2·16 | ... |
| | | | Total Hyderabad Division | 102,257 | 159·497 | ... |
| Jerruck | Viran | Karachi | Viran | 9,142 | 14·182 | ... |
| | | | Sonda | 2,114 | 3·194 | ... |
| | | | Hilaya | 2,898 | 4·338 | ... |
| | Tatta | | Lalang | 5,151 | 8·31 | ... |
| | | | Shah Lonko | 1,690 | 2·410 | ... |
| | | | Garko | 4,079 | 6·239 | ... |
| | | | Kacho Shah Lonko | 313 | ·313 | ... |
| | | | ,, Ali Ganj | 715 | 1·75 | ... |
| | | | ,, Bao Purandas | 6,413 | 10·13 | ... |
| | | | ,, Bijora | 5,890 | 9·120 | ... |
| | | | ,, Chach | 3,362 | 5·162 | ... |
| | | | Malir | 24 | ·24 | ... |
| | Shah Bunder | | Kacho Alibahar | 3,000 | 4·440 | ... |
| | | | ,, Surjani | 3,410 | 5·210 | ... |
| | | | ,, Kot Almo | 2,335 | 3·415 | ... |
| | | | Penah | 6,169 | 9·409 | ... |
| | | | Susati | 39 | ·39 | ... |
| | | | Khirsar | 1,380 | 2·100 | ... |
| | | | Huderani | 5,511 | 8·391 | ... |
| | | | Surjani | 1,364 | 2·84 | ... |
| | | | Ganj | 2,228 | 3·308 | ... |
| | | | Hazari | 2,483 | 3·563 | ... |
| | | | Makbulo | 496 | ·496 | ... |
| | Mulchand | | Khadi | 4,500 | 7·20 | ... |
| | | | Phatah | 258 | ·258 | ... |
| | | | Mulchand | 5,454 | 8·334 | ... |
| | Mulchand Kotiar | Hyderabad | Bud-ka-Takar | 975 | 1·335 | ... |
| | | | Husri | 420 | ·420 | ... |
| | | | Khatro | 416 | ·416 | ... |
| | | | Khathar | 2,975 | 4·415 | ... |
| | | | Katiar | 952 | 1·372 | ... |
| | | | Khirdahi | 290 | ·290 | ... |
| | | | Tikhur | 1,709 | 2·429 | ... |
| | | | Khokhar | 1,556 | 2·276 | ... |
| | | | Total Jerruck Division | 89,711 | 140·111 | ... |
| | | | Grand Total of the Sind Circle | 624,049 | 975·49 | 1,074 |

No. 46.

SIND CIRCLE.

*Forests, 1893-94.*

| Excluded or transferred to other heads. | Area on 30th June 1894. | | No. and date of Notification of addition or transfer. | REMARKS. |
|---|---|---|---|---|
| Acres. | Acres. | Equivalent in square miles. | | |
| ... | 10,589 | 16·299 | | |
| ... | 8,045 | 12·365 | | |
| ... | 3,390 | 5·130 | | |
| ... | 1,365 | 2·85 | | |
| ... | 10,796 | 16·551 | | |
| ... | 867 | 1·227 | | |
| ... | 13,073 | 20·279 | | |
| ... | 4,192 | ·6352 | | |
| ... | 2,924 | 4·364 | | |
| ... | 1,947 | 3·27 | | |
| ... | 1,138 | 1·498 | | |
| ... | 2,207 | 3·287 | | |
| ... | 743 | 1·108 | | |
| ... | 925 | 1·285 | | |
| ... | 146,555 | 228 685 | | |
| ... | 6,380 | 9·620 | | |
| ... | 1,556 | 2·276 | | |
| ... | 2,642 | 4·82 | | |
| ... | 3,388 | 5·138 | | |
| ... | 14,753 | 23·33 | | |
| ... | 5,130 | 8·10 | | |
| ... | 2,125 | 3·205 | | |
| ... | 1,627 | 2·347 | | |
| ... | 4,061 | 6·221 | | |
| ... | 841 | 1·291 | | |
| ... | 8,666 | 13·346 | | |
| ... | 760 | 1·120 | | |
| ... | 2,080 | 3·160 | | |
| ... | 1,926 | 3·6 | | |
| ... | 5,354 | 8·284 | | |
| ... | 3,041 | 4·481 | | |
| ... | 4,917 | 7·437 | | |
| ... | 756 | 1·116 | | |
| ... | 2,150 | 3·230 | | |
| ... | 181 | ·181 | | |
| ... | 292 | ·292 | | |
| ... | 314 | ·314 | | |
| ... | 5,523 | 8·403 | | |
| ... | 1,701 | 2·421 | | |
| ... | 855 | 1·245 | | |
| ... | 7,748 | 12·68 | | |
| ... | 1,539 | 2·259 | | |
| ... | 10,705 | 16·465 | | |
| ... | 1,296 | 2·16 | | |
| ... | 102,257 | 159·497 | | |
| ... | 9,142 | 14·182 | | |
| ... | 2,114 | 3·194 | | |
| ... | 2,898 | 4·338 | | |
| ... | 5,151 | 8·31 | | |
| ... | 1,690 | 2·410 | | |
| ... | 4,079 | 6·239 | | |
| ... | 313 | ·313 | | |
| ... | 715 | 1·75 | | |
| ... | 6,413 | 10·13 | | |
| ... | 5,890 | 9·130 | | |
| ... | 3,362 | 5·162 | | |
| ... | 24 | ·24 | | |
| ... | 3,000 | 4·440 | | |
| ... | 3,419 | 5·210 | | |
| ... | 2,335 | 3·115 | | |
| ... | 6,169 | 9·409 | | |
| ... | 39 | ·39 | | |
| ... | 1,330 | 2·100 | | |
| ... | 5,511 | 8·391 | | |
| ... | 1,364 | 2·84 | | |
| ... | 2,228 | 3·308 | | |
| ... | 2,483 | 3·563 | | |
| ... | 496 | ·496 | | |
| ... | 4,500 | 7·20 | | |
| ... | 258 | ·258 | | |
| ... | 5,454 | 8·334 | | |
| ... | 975 | 1·335 | | |
| ... | 420 | ·420 | | |
| ... | 416 | ·416 | | |
| ... | 2,975 | 4·415 | | |
| ... | 952 | 1·312 | | |
| ... | 290 | ·290 | | |
| ... | 1,709 | 2·429 | | |
| ... | 1,516 | 2·276 | | |
| ... | 89,711 | 130·111 | | |
| 1,074 | 625,123 | 976·488 | | |

G. M. RYAN,

Deputy Conservator of Forests, Sind Circle.

ANNUAL FORM No. 46 A.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—AREA OF PROTECTED FORESTS, 1894-95.

| Division. | Range. | Civil District or Territory. | Name of Forest. | Area on 1st July 1893. | | Added during the year. | Excluded or transferred to other heads. | Area on 30th June 1894. | | No. and date of Notification of addition or transfer. | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Acres. | Equivalent in square miles. | Acres. | Acres. | Acres. | Equivalent in square miles. | | |
| | | | | | Sq. m. a. | | | | Sq. m. a. | | |
| Sukkur ... | Jacobabad | Upper Sind Frontier ... | Macaulay ..... | 183 | 0 183 | ... | ... | 183 | 0 183 | | |
| | Thul ... | | Dickinson ..... | 585 | 0 585 | ... | ... | 585 | 0 585 | | |
| | | | Total ... | 768 | 1 128 | ... | ... | 768 | 1 128 | | |
| Jerruck ... | Viran ... | Karachi ..... | Kacho Sonda ..... | 117 | 0 117 | ... | 117 | ... | ... | | Handed over to the Revenue Dept. |
| Naushahro. | Sehwan ... | Karachi ..... | Karampur ..... Shahgarh Dhandon | 2,347 | 3 427 | ... | ... | 2,347 | 3 427 | | |
| | | | Total ... | 3,232 | 5 32 | ... | 117 | 3,115 | 4 555 | | |

*Karachi,*
*25th October 1894.*

G. M. RYAN,
Deputy Conservator of Forests, Sind Circle.

# FORM No. 52.

## FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

*Register of breaches of Forest Rules during 1893-94.*

| Forest Division and Civil District. | | Cases pending from 1892-93. | New Cases of the Year. | | | | | Total cases. | Disposed of during the Year. | | | | | | Cases pending at close of year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Injury to forest by fire. | Unauthorised felling or appropriation of wood and minor forest produce. | Grazing without permission or in tracts in which grazing is prohibited. | Other offences. | Total new cases of the year. | | Convictions. | | Acquittals. | | Total. | | |
| | | | | | | | | | Cases. | Persons. | Cases. | Persons. | Cases. | Persons. | |
| Sukkur ... ... | A ... ... | 4 | ... | 8 | 4 | ... | 12 | 16 | 5 | 12 | 9 | 47 | 14 | 59 | 2 |
| | B ... .. | ... | ... | 23 | 606 | ... | 629 | 629 | 629 | 638 | ... | ... | 629 | 638 | ... |
| | C ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 4 | ... | 31 | 610 | ... | 641 | 645 | 634 | 650 | 9 | 47 | 643 | 697 | 2 |
| Nausbahro ... | A ... ... | 4 | 1 | 10 | 6 | 3 | 20 | 24 | 9 | 21 | 1 | 6 | 10 | 27 | 14 |
| | B ... ... | ... | ... | 60 | ... | ... | 60 | 60 | 60 | 69 | ... | ... | 60 | 69 | ... |
| | C ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | 4 | 1 | 70 | 6 | 3 | 80 | 84 | 69 | 90 | 1 | 6 | 70 | 96 | 14 |
| Hyderabad ... | A ... ... | 2 | ... | 9 | 4 | ... | 13 | 15 | 11 | 27 | 2 | 3 | 13 | 30 | 2 |
| | B ... ... | ... | ... | 73 | 54 | ... | 127 | 127 | 127 | 127 | ... | ... | 127 | 127 | ... |
| | C ... ... | ... | ... | 2 | ... | ... | 2 | 2 | ... | ... | ... | ... | ... | ... | 2 |
| | Total ... | 2 | ... | 84 | 58 | ... | 142 | 144 | 138 | 154 | 2 | 3 | 140 | 157 | 4 |
| Jerruck ... ... | A ... ... | ... | ... | 2 | 1 | ... | 3 | 3 | ... | ... | 2 | 3 | 2 | 3 | 1 |
| | B ... ... | ... | ... | 4 | 397 | 1 | 402 | 402 | 402 | 402 | ... | ... | 402 | 402 | ... |
| | C ... ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| | Total ... | ... | ... | 6 | 398 | 1 | 405 | 405 | 402 | 402 | 2 | 3 | 404 | 405 | 1 |
| Grand Total... | A ... ... | 10 | 1 | 29 | 15 | 3 | 48 | 58 | 25 | 60 | 14 | 59 | 39 | 119 | 19 |
| | B ... ... | ... | .. | 160 | 1,057 | 1 | 1,218 | 1,218 | 1,218 | 1,236 | ... | ... | 1,218 | 1,236 | ... |
| | C ... ... | ... | ... | 2 | ... | ... | 2 | 2 | ... | ... | ... | ... | ... | ... | 2 |

*N. B.*—**A** means cases taken into Court.
**B** means cases disposed of under Section 67 of the Indian Forest Act.
**C** means undetected cases.

G. M. RYAN,
Acting Conservator of Forests, Sind Circle.

*Karachi,*
*25th October 1894.*

## FORM No. 53.

### Forest Department, Bombay, Sind Circle.

### Area of Forest tracts protected from fire during 1893-94.

| Division. | Forest tracts. | Year in which protection commenced. | Area protected during 1892-93. | Area attempted to be protected. | Failures. | Area actually protected. | Cost. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | | Acres. | Acres. | Acres. | Acres. | | |
| Sukkur | Mirpur | Not known ... | 36,563 | 36,578 | 998 | 35,580 | | No special measures are taken for protection of the forests from fire. |
| | Kashmor | | 6,586 | 8,907 | 237 | 8,670 | | |
| | Ghotki | | 25,575 | 27,113 | 276 | 26,837 | | |
| | Sadhuja | | 72,750 | 73,009 | 1,792 | 71,217 | | |
| | Abad | | 51,747 | 51,749 | 400 | 51,349 | | |
| | Sukkur | | 25,485 | 25,988 | 23 | 25,965 | | |
| | Shikarpur | 1887-88 ..... | 23,957 | 23,957 | ..... | 23,957 | | |
| | Jacobabad, Thul | 1885-86 ..... | 42,358 | 40,067 | 1 | 40,066 | | |
| Naushahro | Larkano | Not known ... | 17,796 | 16,204 | 109 | 16,095 | | |
| | Kandiaro | | 17,607 | 11,038 | ..... | 11,038 | | |
| | Sehwan | | 600 | 1,114 | ..... | 1,114 | | |
| Hyderabad | Rano | Do. ..... | 10,670 | 10,720 | 374 | 10,346 | | |
| | Unarpur | | 13,010 | 13,050 | 142 | 12,908 | | |
| | Miani | | 3,833 | 3,833 | ..... | 3,833 | | |
| | Kotri | | 500 | 500 | ..... | 500 | | |
| Jerruck | Viran | Do. ..... | 2,032 | 2,032 | ..... | 2,032 | | |
| | Tatta | | 1,794 | 2,494 | 253 | 2,241 | | |
| | Shahbandar | | 6,795 | 12,328 | 3,191 | 9,137 | | |
| | Mulchand | | 3,537 | 3,537 | 13 | 3,524 | | |
| | Katiar | | 1,603 | 1,603 | ..... | 1,603 | | |
| | Total ... | ..... | 364,798 | 365,821 | 7,809 | 358,012 | | |

Karachi,
25th October 1894.

G. M. RYAN,
Deputy Conservator of Forests, Sind Circle.

FORM No. 54. (Sections 265, 267, 268.)

# FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

*Area closed and open to Grazing during 1893-94.*

| Division. | Area in square miles. | | | | | | Remarks. |
|---|---|---|---|---|---|---|---|
| | Closed to all animals. | | Closed to browsers (camels, goats or sheep). | | Open to all animals. | Total Area. | |
| | Whole year. | Part of year. | Whole year. | Part of year. | Whole year. | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| **RESERVED FORESTS.** | Sqr. Miles. Acres. | Sqr. Miles. Acres. | Sqr. Miles. Acres. | Sqr. Miles. Acres. | Sqr. Miles. Acres. | Sqr. Miles Acres. | |
| Sukkur | 5 374 | 5 459 | ... ... | ... | 436 327 | 447 520 | |
| Naushahro | 6 236 | 3 232 | 1 625 | 0 45 | 217 135 | 228 633 | |
| Hyderabad | 27 0 | ... | 25 0 | 12 0 | 96 0 | 160 0 | |
| Jarruck | 6 567 | ... | ... | ... | 133 184 | 140 111 | |
| | 45 537 | 9 51 | 26 625 | 12 45 | 883 6 | 976 624 | |
| **PROTECTED.** | | | | | | | |
| Sukkur | ... | ... | ... | ... | 1 128 | 1 128 | |
| | ... | ... | 3 427 | ... | ... | 3 427 | |
| | ... | ... | 3 427 | ... | 1 128 | 4 555 | |

*Karachi,*
*25th October 1894.*

G. M. RYAN,
Acting Conservator of Forests, Sind Circle.

# FORM No. 55.

## FOREST DEPARTMENT BOMBAY, SIND CIRCLE.

*Return of Grazing in the State Forests during 1893-94.*

| Division. | Grazing on Payment. | | | | | | Number of animals. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | At full rates. | | | | | | At privileged rates. | | | | | | |
| | Bufaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Fees received. | Bufaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Fees received. Actual. | Fees received. Value at full rates. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | | | | | | Rs. | | | | | | Rs. | Rs. |
| Sukkur ... | 13,943 | 12,754 | 73,035 | 1,589 | 925 | 11,639 | 7,278 | 18,569 | 40,556 | 468 | 2 | 4,043 | 7,713 |
| Naushahro ... | 6,010 | 5,812 | 62,640 | 1,254 | ... | 6,055 | 5,047 | 6,146 | 34,202 | 1,199 | 50 | 2,785 | 4,329 |
| Hyderabad ... | 10,395 | 17,988 | 1,10,448 | 1,707 | ... | 12,115 | 240 | 591 | ... | ... | ... | 79 | 200 |
| Jerruck ... | 12,613 | 14,954 | 63,105 | 2,952 | 39 | 11,599 | ... | ... | ... | ... | ... | ... | ... |
| Total ... | 42,961 | 51,508 | 3,09,228 | 7,502 | 964 | 41,408 | 12,565 | 25,306 | 74,758 | 1,667 | 52 | 6,907 | 12,242 |

| Division. | Grazing free. | | | | | | Number of animals. | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | By right under Settlement. | | | | | | During pleasure of Government, or otherwise than under Settlement. | | | | | | Total value of fees at full rates. | Grand total of value at full rates. |
| | Bufaloes. | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Value of fees at full rates. | Bufaloes | Cows and Bullocks. | Goats and Sheep. | Camels. | Other animals. | Value of fees at full rates. | | |
| 1 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | | | | | | Rs. | | | | | | Rs. | Rs. | Rs. |
| Sukkur ... | 889 | 6,681 | ... | ... | 305 | 9,782 | ... | ... | ... | ... | ... | ... | 9,782 | 29,134 |
| Naushahro ... | 1,182 | 5,018 | ... | ... | ... | 1,384 | 101 | 389 | 192 | ... | 13 | 119 | 1,503 | 11,887 |
| Hyderabad ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 12,315 |
| Jerruck ... | ... | ... | ... | ... | ... | ... | 4 | 71 | ... | 4 | ... | 101 | 101 | 11,700 |
| Total ... | 2,071 | 11,699 | ... | ... | 305 | 11,166 | 105 | 460 | 192 | 4 | 13 | 220 | 11,386 | 65,036 |

*Karachi,*
*25th October* 1894.

G. M. RYAN,
Ag. Dy. Conservator of Forests,
Sind Circle.

FORM NO. 56.

FORM No. 56.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—AREA OF PLANTATIONS, 1893-94.

| Division. | Name of Plantation. | Area in Acres | | | | Receipts of the year. | Charges of the year. | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | | On 1st July 1893. | Added during the year. | Excluded during the year. | Area on 30th June 1894. | | | |
| | *Regular Plantation.* | | | | | | | |
| Sukkur ... | Rahuja Nursery ... ... ... | 10 | ... | ... | 10 | 193 | 524 | |
| | Shah Plantation ... ... ... | 7 | ... | ... | 7 | ... | ... | |
| | Sadhuja do. ... ... ... | 34 | ... | ... | 34 | ... | 84 | |
| Hyderabad ... | Devi-Devi Plantation ... ... ... | 13 | ... | ... | 13 | 359 | 265 | |
| | Bamboo do ... ... ... | 13 | ... | ... | 13 | ... | ... | |
| | Miani Bungalow, Mango and Miance Monument Gardens ... ... ... ... | 12 | ... | ... | 12 | 175 | 789 | |
| Jerruck ... | Malir Nursery ... ... ... ... | 24 | ... | ... | 24 | 8 | 84 | *Casuarina* plantation near Karachi. |
| | Sonda do. ... ... ... ... | 5 | ... | ... | 5 | 38 | 331 | |
| | Total ... | 118 | ... | ... | 118 | 773 | 2,077 | |
| | *Cultural Operations.* | | | | | | | |
| Sukkur ... | Abad ... ... ... ... | 695 | ... | 695 | ... | ... | ... | Entirely washed away by the river. |
| | Bindi Dhareja ... ... ... ... | 1,534 | 730 | ... | 2,264 | ... | ... | |
| | Shah ... ... ... ... | 218 | ... | ... | 218 | ... | ... | |
| | Keti Shah ... ... ... ... | ... | 160 | ... | 160 | ... | ... | |
| | Mohro Mari ... ... ... ... | 365 | 340 | ... | 705 | ... | ... | |
| | Khia Bindi ... ... ... ... | 137 | 120 | ... | 257 | ... | ... | |
| | Kadrapur ... ... ... ... | 635 | 135 | ... | 770 | ... | ... | |
| | Syadpur ... ... ... ... | 16 | ... | ... | 16 | ... | ... | |
| | Adilpur ... ... ... ... | 20 | 1,390 | ... | 1,410 | ... | ... | |
| | Ghotki ... ... ... ... | ... | 186 | ... | 186 | ... | ... | |
| | Jarwar ... ... ... ... | ... | 350 | ... | 350 | ... | ... | |
| | Samo wah ... ... ... ... | ... | 25 | ... | 25 | ... | ... | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Raoti ... ... ... ... | 30 | 10 | ... | 40 | ... | ... |
| | Jehanpur ... ... ... ... | 6 | 10 | ... | 16 | ... | ... |
| | Sarhad ... ... ... ... | 8 | 18 | ... | 26 | ... | ... |
| | Mirpur ... ... ... ... | 6 | 10 | ... | 16 | ... | ... |
| | Gublo ... ... ... ... | 5 | 160 | ... | 165 | ... | ... |
| | Garhi Halim ... ... ... ... | 10 | 15 | ... | 25 | ... | ... |
| | Lakhi ... ... ... ... | 3 | ... | ... | 3 | ... | ... |
| | Kote Sultan ... ... ... ... | 500 | ... | ... | 500 | ... | ... |
| | Andaldal ... ... ... ... | 28 | ... | ... | 28 | ... | ... |
| | Bagirji ... ... ... ... | 3 | ... | ... | 3 | ... | ... |
| | Keti Bagirji ... ... ... ... | 50 | ... | ... | 50 | ... | ... |
| | Total ... | 4,269 | 3,659 | 695 | 7,233 | ... | ... |
| Nushahro... | Mohbatdero ... ... ... ... | 850 | 595 | ... | 1,445 | ... | ... |
| | Bhour ... ... ... ... | 1,634 | 80 | ... | 1,714 | ... | ... |
| | Samtia ... ... ... ... | 180 | 230 | ... | 410 | ... | ... |
| | Kamaldero ... ... ... ... | 100 | ... | ... | 100 | ... | ... |
| | Bhorti ... ... ... ... | 370 | 200 | ... | 570 | ... | ... |
| | Dalipota ... ... ... ... | 125 | ... | ... | 125 | ... | ... |
| | Karampur ... ... ... ... | 45 | 177 | ... | 222 | ... | ... |
| | Khairodero No. II. ... ... ... | 320 | 220 | ... | 540 | ... | ... |
| | Do. No. I. ... ... ... | ... | 340 | ... | 340 | ... | ... |
| | Lalia ... ... ... ... | 30 | 10 | ... | 40 | ... | ... |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Naushahro... (*continued*). | Bhan | ... | ... | ... | ... | 100 | ... | ... | 100 | ... | ... | | |
| | Baghban | ... | ... | ... | ... | 22 | ... | ... | 22 | ... | ... | | |
| | Phaka | ... | ... | ... | ... | 255 | ... | 255 | ... | ... | ... | 255 acres open to grazing. | |
| | Pipri | ... | ... | ... | ... | 267 | ... | 267 | ... | ... | ... | 267 | „ „ „ |
| | Kalubori | ... | ... | ... | ... | 20 | ... | 20 | ... | ... | ... | 20 | „ „ „ |
| | Sharifpur | ... | ... | ... | ... | 45 | ... | ... | 45 | ... | ... | | |
| | Amrote | ... | ... | ... | ... | 110 | ... | ... | 110 | ... | ... | | |
| | Kanuri | ... | ... | ... | ... | ... | 35 | ... | 35 | ... | ... | | |
| | Muso | ... | ... | ... | ... | 90 | 15 | ... | 105 | ... | ... | | |
| | Dosu | ... | ... | ... | ... | 147 | ... | 147 | ... | ... | ... | | |
| | Bahman | ... | ... | ... | ... | 30 | ... | 30 | ... | ... | ... | | |
| | Keti Ubhuro | ... | ... | ... | ... | 3 | 50 | ... | 53 | ... | ... | | |
| | Agani | ... | ... | ... | ... | ... | 200 | ... | 200 | ... | ... | | |
| | Gajidero | ... | ... | ... | ... | 30 | ... | ... | 30 | ... | ... | | |
| | Nari... | ... | ... | ... | ... | 12 | ... | ... | 12 | ... | ... | | |
| | Kasimshah | ... | ... | ... | ... | 11 | ... | ... | 11 | ... | ... | | |
| | Soi ... | ... | ... | ... | ... | 15 | ... | ... | 15 | ... | ... | | |
| | Budodero | ... | ... | ... | ... | 14 | ... | ... | 14 | ... | ... | | |
| | Dangar | ... | ... | ... | ... | 15 | ... | ... | 15 | ... | ... | | |
| | | | | Total | ... | 4,840 | 2,152 | 719 | 6,273 | ... | ... | | |
| Hyderabad... | Nasri | ... | ... | ... | ... | 640 | 160 | ... | 800 | ... | ... | | |
| | Mad | ... | ... | ... | ... | 966 | 180 | ... | 1,146 | ... | ... | | |
| | Mehrabpur | ... | ... | ... | ... | 560 | 160 | ... | 720 | ... | ... | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mari ... ... ... ... | 1,856 | 180 | ... | 2,036 | ... | ... | |
| | Keti Jurio ... ... ... ... | 310 | 200 | ... | 510 | ... | ... | |
| | Rano ... ... ... ... | 250 | ... | ... | 250 | ... | ... | |
| | Nurketi ... ... ... ... | 455 | 20 | ... | 475 | ... | ... | |
| | Butho ... ... ... ... | 2,755 | 740 | ... | 3,495 | ... | ... | |
| | Manjhand ... ... ... ... | 408 | 160 | ... | 568 | ... | ... | |
| | Unarpur ... ... ... ... | 1,855 | 440 | ... | 2,295 | ... | ... | |
| | Ghagh ... ... ... ... | 180 | ... | ... | 180 | ... | ... | |
| | Khanote ... ... ... ... | 943 | 200 | ... | 1,143 | ... | ... | |
| | Sekhat ... ... ... ... | 50 | ... | 40 | 10 | ... | ... | 40 acres opened to grazing. |
| | Matiari and Jakhri ... ... ... | 1,590 | 300 | ... | 1,890 | ... | ... | |
| | Miani ... ... ... ... | 1,010 | 130 | ... | 1,140 | ... | ... | |
| | Muhammad Khan ... ... ... | 181 | ... | ... | 181 | ... | ... | |
| | Kathri ... ... ... ... | 60 | 50 | ... | 110 | ... | ... | |
| | Ghali ... ... ... ... | 10 | 10 | ... | 20 | ... | ... | |
| | Shah Makai ... ... ... ... | 43 | 56 | ... | 99 | ... | ... | |
| | Jamshoro ... ... ... ... | 23 | 35 | ... | 58 | ... | ... | |
| | Karokho ... ... ... ... | ... | 40 | ... | 40 | ... | ... | |
| | Total ... | 14,145 | 3,061 | 40 | 17,166 | ... | ... | |
| Jerruck ... | Khadi ... ... ... ... | 71 | 362 | ... | 433 | ... | ... | |
| | Bud-ka-Takar ... ... ... ... | 107 | 53 | ... | 160 | ... | ... | |
| | Mulchand ... ... ... ... | ... | 55 | ... | 55 | ... | ... | |
| | Viran ... ... ... ... | 187 | 100 | ... | 287 | ... | ... | |
| | Sonda ... ... ... ... | 240 | 51 | ... | 291 | ... | ... | |
| | Hilaya ... ... ... ... | ... | 160 | ... | 160 | ... | ... | |
| | Lalang ... ... ... ... | ... | 230 | ... | 230 | ... | ... | |
| | Khokhar ... ... ... ... | 40 | 514 | ... | 554 | ... | ... | |
| | Khathar ... ... ... ... | 60 | 170 | ... | 230 | ... | ... | |
| | Katiar ... ... ... ... | 24 | 96 | ... | 120 | ... | ... | |
| | Khatro ... ... ... ... | ... | 416 | ... | 416 | ... | ... | |
| | Tikhur ... ... ... ... | ... | 210 | ... | 210 | ... | ... | |
| | Shah Lonko ... ... ... ... | 266 | 147 | ... | 413 | ... | ... | |
| | Garko ... ... ... ... | ... | 293 | ... | 293 | ... | ... | |
| | Kacho Surjani ... ... ... ... | ... | 220 | ... | 220 | ... | ... | |
| | Kot Almo ... ... ... ... | ... | 40 | ... | 40 | ... | ... | |
| | Huderani ... ... ... ... | ... | 40 | ... | 40 | ... | ... | |
| | Hazari ... ... ... ... | ... | 80 | ... | 80 | ... | ... | |
| | Ali Bahar ... ... ... ... | ... | 5 | ... | 5 | ... | ... | |
| | Surjani ... ... ... ... | ... | 110 | ... | 110 | ... | ... | |
| | Penah ... ... ... ... | ... | 60 | ... | 60 | ... | ... | |
| | Total ... | 995 | 3,412 | ... | 4,407 | ... | ... | |
| | Total regular plantation... ... | 118 | ... | ... | 118 | 773 | 2,077 | |
| | Total cultural operations... .. | 24,249 | 12,284 | 1,454 | 35,079 | ... | ... | |
| | Grand Total of regular and cultural operations. . | 24,367 | 12,284 | 1,454 | 35,197 | 773 | 2,077 | |

Karachi,
25th October 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

## FORM No. 57.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—OUTTURN (IN CUBIC FEET, SOLID) OF TIMBER AND FUEL DURING THE YEAR 1893-94 AND AGENCY OF EXPLOITATION.

| Division. | Timber in the rough; logs. | | | | | Timber in the rough; poles. | | | | | Sawn or squared timber. | | | | | Miscellaneous. | | | | | Fuel. | | | | | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Government. | Purchasers. | Free grantees. | Right-holders. | Total. | Outturn. |
| *I.—Reserved Forests.* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sukkur ... ... ... ... | 21,064 | 23,362 | 169 | ... | 44,595 | 6,185 | 134 | 24 | ... | 6,343 | ... | ... | ... | ... | ... | 23,067 | 12,711 | 2,319 | ... | 38,097 | 42,86,014 | 28,90,152 | 377 | ... | 71,76,543 | 72,65,578 |
| Naushahro ... ... ... ... | 4,730 | 2,990 | ... | ... | 7,720 | 688 | 8,874 | 500 | ... | 10,062 | 627 | ... | ... | ... | 627 | 28 | 153 | 55 | ... | 236 | 22,77,364 | 3,65,026 | ... | ... | 26,42,390 | 26,61,035 |
| Hyderabad ... ... ... ... | ... | 2,565 | 309 | ... | 2,874 | 53,002 | 7,574 | 265 | ... | 60,841 | 35,279 | 1,044 | 300 | ... | 36,623 | 668 | 122 | ... | ... | 790 | 44,07,925 | 3,23,777 | ... | ... | 47,31,702 | 48,32,830 |
| Jerruck ... ... ... ... | 17,611 | 1,985 | 301 | ... | 19,897 | 373 | 8,793 | 574 | ... | 9,740 | 30,101 | 94 | ... | ... | 30,195 | ... | 506 | ... | ... | 506 | 31,77,513 | 53,440 | ... | ... | 32,30,953 | 32,91,291 |
| Total ... | 43,405 | 30,902 | 779 | ... | 75,086 | 60,248 | 25,375 | 1,363 | ... | 86,986 | 66,007 | 1,138 | 300 | ... | 67,445 | 23,763 | 13,492 | 2,374 | ... | 39,629 | 1,41,48,816 | 36,32,395 | 377 | ... | 1,77,81,588 | 1,80,50,734 |
| *II.—Protected Forests.* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sukkur ... ... ... ... | ... | 69 | ... | ... | 69 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 57 | ... | ... | 57 | ... | ... | ... | ... | ... | 126 |

Charcoal should be shown by its equivalent in fuel, the quantity of wood consumed in producing it being entered in cubic feet solid.

Karachi,
25th October 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

FORM No. 58.

# FORM No. 58.

## FOREST DEPARTMENT, SIND CIRCLE.—Outturn of minor Forest produce.

| Division. | Description of produce. | Produce removed or utilised | | | | | | | | | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | By Government agency. | | By purchasers. | | By free grants. | | By right-holders. | | Total. | | |
| | | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | Quantity. | Value. | |
| | | | Rs. | | Rs. | | Rs. | | Rs. | | Rs. | |
| Sukkur ..... | Mango fruit ... ... ... ... | ... | 251 | ... | ... | ... | ... | ... | ... | ... | 251 | |
| | Babul seed... ... ... ... ... ... | Maunds 9 | 14 | ... | ... | ... | ... | ... | ... | Mds. 9 | 1 | |
| | Babul pods... ... ... ... ... ... | ... | ... | Contract | 135 | ... | ... | ... | ... | Contract | 135 | |
| | Munj reed ... ... ... ... ... | ... | ... | Do. | 818 | ... | ... | ... | ... | Do. | 818 | |
| | Jháu brushwood ... ... ... ... ... | ... | ... | Bdles. 536 | 35 | 28 | 2 | ... | ... | Bdles. 571 | 37 | |
| | Kanh grass... ... ... ... ... ... | ... | ... | Do. 1,562 | 48 | ... | ... | ... | ... | Do. 1,562 | 48 | |
| | Dabh grass... ... ... ... ... ... | ... | ... | Mds. 1,564 | 98 | ... | ... | ... | ... | Mds. 1,564 | 98 | |
| | Toothbrushes ... ... ... ... ... | ... | ... | .... | 1 | ... | ... | ... | ... | ... | 1 | |
| | Kandi Branches ... ... ... ... ... | ... | ... | ... | 9 | ... | ... | ... | ... | ... | 9 | |
| | Grazing fees ... ... ... ... ... | ... | ... | ... | 15,682 | ... | ... | ... | ... | ... | 15,682 | |
| | Total... ... | ... | 265 | ... | 16,826 | 28 | 2 | ... | ... | ... | 17,093 | |
| Naushahro... | Babul pods... ... ... ... ... ... | ... | ... | Contract | 1,109 | ... | ... | ... | ... | ... | 1,109 | |
| | Ber fruit ... ... ... ... ... ... | ... | ... | Do. | 26 | ... | ... | ... | ... | ... | 26 | |
| | Fruit ... ... ... ... ... ... | ... | ... | Do. | 27 | ... | ... | ... | ... | ... | 27 | |
| | Sar reed ... ... ... ... ... ... | ... | ... | Bdles. 331 | 30 | ... | ... | ... | ... | Bdles. 331 | 30 | |
| | Do. ... ... ... ... ... ... | ... | ... | Contract | 886 | ... | ... | ... | ... | Contract | 886 | |
| | Sar grass ... ... ... ... ... ... | ... | ... | Maunds. 2 | 1 | ... | ... | ... | ... | Maunds 2 | 1 | |
| | Kanh grass... ... ... ... ... ... | ... | ... | Bdles. 16 | 2 | ... | ... | ... | ... | Bundles 16 | 2 | |
| | Jháu brushwood ... ... ... ... ... | ... | ... | Bdles. 2,540 | 161 | ... | ... | ... | ... | Do. 2,540 | 161 | |
| | Babul leaves ... ... ... ... ... | ... | ... | ... | 5 | ... | ... | ... | ... | ... | 5 | |
| | Branches of trees ... ... ... ... ... | ... | ... | ... | 38 | ... | ... | ... | ... | ... | 38 | |
| | Babul bark... ... ... ... ... ... | ... | ... | ... | 1 | ... | ... | ... | ... | ... | 1 | |
| | Grazing fees and Fodder grass ... ... ... | ... | ... | ... | 8,867 | ... | ... | ... | ... | ... | 8,867 | |
| | Total... ... | ... | ... | ... | 11,153 | ... | ... | ... | ... | ... | 11,153 | |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hyderabad... | Babul bark... | ... | ... | ... | ... | ... | ... | ... | Mds. | 11 | 1 | ... | ... | ... | ... | Mds. | 11 | 1 |
| | Toothbrushes | ... | ... | ... | ... | ... | ... | ... | Bdles. | 113 | 45 | ... | ... | ... | ... | Bdles. | 113 | 45 |
| | Brushwood... | ... | ... | ... | ... | ... | ... | ... | Do. | 876 | 55 | ... | ... | ... | ... | Do. | 876 | 55 |
| | Kanh grass... | ... | ... | ... | ... | ... | ... | ... | Do. | 1,416 | 88 | 105 | 7 | ... | ... | Do. | 1,521 | 95 |
| | Do. ... | ... | ... | ... | ... | ... | ... | ... | Contract... | | 200 | ... | ... | ... | ... | Contract | | 200 |
| | Compensation on account of damage done to trees | ... | ... | ... | ... | ... | ... | ... | ... | | 313 | ... | ... | ... | ... | ... | | 313 |
| | Lac ... | ... | ... | ... | ... | ... | ... | ... | Mds. | 7 | 13 | ... | ... | ... | ... | Mds. | 7 | 13 |
| | Do. ... | ... | ... | ... | ... | ... | ... | ... | Contract | | 5,425 | ... | ... | ... | ... | Contract | | 5,425 |
| | Babul pods... | ... | ... | ... | ... | ... | ... | ... | Do. | | 11,250 | ... | ... | ... | ... | Do. | | 11,250 |
| | Mangoes, &c. | ... | ... | ... | ... | ... | ... | ... | Do. | | 193 | ... | ... | ... | ... | Do. | | 193 |
| | Babul seed... | ... | ... | ... | ... | ... | Maunds. | 4 | 5 | ... | ... | ... | ... | ... | ... | Mds. | 4 | 5 |
| | Grazing fees | ... | ... | ... | ... | ... | ... | ... | ... | ... | 12,194 | ... | ... | ... | ... | ... | ... | 12,194 |
| | | | Total... | | | ... | ... | 5 | ... | | 29,777 | 105 | 7 | ... | ... | ... | | 29,789 |
| Jerruck ..... | Fruit ... | ... | ... | ... | ... | ... | ... | ... | Contract | | 70 | ... | ... | ... | ... | Contract | | 70 |
| | Kanh grass... | ... | ... | ... | ... | ... | ... | ... | Bdles. | 56 | 3 | ... | ... | ... | ... | Bdles. | 56 | 3 |
| | Sar grass ... | ... | ... | ... | ... | ... | ... | ... | Contract | | 15 | ... | ... | ... | ... | Contract | | 15 |
| | Babul seeds | ... | ... | ... | ... | ... | 14 | 20 | ... | | ... | ... | ... | ... | ... | Maunds. | 14 | 20 |
| | Lac ... ... | ... | ... | ... | ... | ... | ... | ... | Contract | | 253 | ... | ... | ... | ... | Contract | | 253 |
| | Grass ... | ... | ... | ... | ... | ... | ... | ... | Do. | | 8 | ... | ... | ... | ... | Do. | | 8 |
| | Babul pods... | ... | ... | ... | ... | ... | ... | ... | Do. | | 2,913 | ... | ... | ... | ... | Do. | | 2,913 |
| | Compensation | ... | ... | ... | ... | ... | ... | ... | ... | | 4 | ... | ... | ... | ... | ... | | 4 |
| | Grazing fees | ... | ... | ... | ... | ... | ... | ... | ... | | 11,599 | ... | ... | ... | ... | ... | | 11,599 |
| | | | Total... | | | ... | ... | 20 | ... | | 14,865 | ... | ... | ... | ... | ... | | 14,885 |

Karachi,
25th October, 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

## FORM No. 59.

### FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

**Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1893-94.**

| | Particulars. | No. or quantity. | Cubic feet. | Total of each head. Number or quantity. | Total of each head. Cubic feet. |
|---|---|---|---|---|---|
| | **TIMBER.** | | | | |
| | Balance at commencement of the year. | | | | |
| | *Sale Depôts.* | | | | |
| Sukkur Division. | Babul logs and dasas ... ... ... | 932 | 5,869 | | |
| | Bahan do. do. ... ... ... | 1,805 | 7,223 | | |
| | Tali do. do. ... ... ... | 60 | 395 | | |
| | Tali posts ... ... ... ... | 19 | | | |
| | Babul do. ... ... ... ... | 431 | | | |
| | Bahan do. ... ... ... ... | 3,368 | | | |
| | Bahan rafters ... ... ... | 15,618 | | | |
| | Jhau do. ... ... ... | 1,459 | | | |
| | Babul cart axles ... ... ... | 1,136 | | | |
| | *Forest Depôts.* | | | 24,828 | 13,487 |
| | Bahan rafters ... ... ... | 6,500 | | | |
| | Bahan Dasas ... ... ... | 300 | | | |
| Naushahro Division. | *Sale Depôts.* | | | 6,800 | |
| | Bahan logs... ... ... ... | 2 | 13 | | |
| | *Forest Depôts.* | | | 2 | 13 |
| | Babul logs ... ... ... ... | 14 | 84 | | |
| | Bahan do. ... ... ... ... | 1 | 3 | | |
| | Lai do. ... ... ... ... | 1 | 2 | | |
| | Kandi do. ... ... ... ... | 1 | 4 | | |
| | | | | 17 | 93 |

| | Particulars. | No. or quantity. | Cubic feet. | Total of each head. No. or quantity. | Total of each head. Cubic feet. |
|---|---|---|---|---|---|
| | **TIMBER.** | | | | |
| | *Removed by purchasers from Depôts.* | | | | |
| | Babul logs and dasas ... ... | 6,043 | 42,588 | | |
| | Bahan logs and dasas ... ... | 2,840 | 13,237 | | |
| | Tali logs do. do. ... ... | 61 | 403 | | |
| | Babul bolsters ... ... ... | 437 | 7,614 | | |
| | Babul sleepers ... ... ... | 3,572 | ... | | |
| | Babul props ... ... ... | 13,506 | ... | | |
| | Babul cart axles ... ... ... | 1,361 | ... | | |
| | Babul posts ... ... ... | 2,336 | ... | | |
| | Bahan posts ... ... ... | 13,074 | ... | | |
| | Babul rafters ... ... ... | 971 | ... | | |
| | Bahan rafters ... ... ... | 119,567 | ... | | |
| | Jhau rafters ... ... ... | 18,009 | ... | | |
| | Babul outer slabs ... ... ... | 1,200 | ... | | |
| | Tali posts ... ... ... | 19 | ... | | |
| | Babul planks ... ... ... | 1 | ... | | |
| | | | | 182,997 | 63,842 |
| | *Sold Locally.* | | | | |
| | Babul logs | | | | |
| | Bahan do. ... ... ... | 884 | 7,166 | | |
| | Lai do. ... ... ... | 1 | 3 | | |
| | Kandi do. ... ... ... | 1 | 2 | | |
| | Tali do. ... ... ... | 1 | 4 | | |
| | | 1 | 28 | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

*Removed from Forests in Sale Depôts.*

| | | | | | | |
|---|---|---|---|---|---|---|
| Babul logs and dasas ... ... ... | 5,891 | 41,435 | | | | |
| Bahan do. do. ... ... ... | 5,986 | 26,979 | | | | |
| Tali do. ... ... ... ... | 1 | 8 | | | | |
| Babul bolsters ... ... ... ... | 424 | 7,614 | | | | |
| Babul sleepers ... ... ... ... | 3,113 | ... | | | | |
| Babul props ... ... ... ... | 8,521 | ... | | | | |
| Babul cart exles ... ... ... ... | 5,057 | ... | | | | |
| Babul posts ... ... ... ... | 3,092 | ... | | | | |
| Bahan posts ... ... ... ... | 31,317 | ... | | | | |
| Babul rafters ... ... ... ... | 37 | ... | | | | |
| Bahan rafters ... ... ... ... | 107,182 | ... | | | | |
| Babul outer slabs ... ... ... ... | 1,195 | ... | | | | |
| | | | 171,816 | 76,036 | | |

*Received in Forest Depôts.*

| | | | | | | |
|---|---|---|---|---|---|---|
| Babul logs ... ... ... ... | 971 | 7,726 | | | | |
| Tali logs ... ... ... ... | 1 | 28 | | | | |
| Babul bolsters ... ... ... ... | 307 | ... | | | | |
| Babul sleepers ... ... ... ... | 6,441 | ... | | | | |
| Babul and Bahan props ... ... ... | 6,539 | ... | | | | |
| Babul outer slabs ... ... ... ... | 306 | ... | | | | |
| Rabul plank ... ... ... ... | 1 | ... | | | | |
| Babul rafters ... ... ... ... | 19 | ... | | | | |
| Bahan do. ... ... ... ... | 62 | ... | | | | |
| Jhau do. ... ... ... ... | 5 | ... | | | | |

Sukkur Division.

| | | | | | |
|---|---|---|---|---|---|
| Bhan posts ... ... ... | 21,486 | ... | | | |
| Bhan rafters ... ... ... ... | 1,833 | ... | | | |
| Babul do. ... ... ... ... | 37 | ... | | | |
| Babul carts axles ... ... | 4,832 | ... | | | |
| | | | 35,359 | 26,682 | |
| *Forest Depôts.* | | | | | |
| Bhan dasas ... ... ... | 206 | ... | | | |
| | | | 206 | ... | |
| *Sale Depôts.* | | | | | |
| Naushahro Division. Babul outer slabs ... ... | 30 | ... | | | |
| | | | 30 | ... | |
| *Forest Depôts.* | | | | | |
| Babul logs ... ... ... | 76 | 544 | | | |
| | | | 76 | 544 | |
| *Sale Depôts.* | | | | | |
| Division. Babul logs ... ... ... | 90 | 625 | | | |
| Babul log ... ... ... | 1 | ... | | | |
| Bahan logs ... ... ... | 1 | 7 | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kirir do. ... ... ... ... | | 3 | ... | | | | | | | | | | | | |
| Bahan pieces ... ... ... ... | | 68 | ... | | | | | | | | | | | | |
| Bahan posts ... ... ... ... | | 3 | ... | | | | | | | | | | | | |
| | | | | 14,726 | 7,754 | Hyderabad | Babul dasas ... ... ... | 4 | 25 | | | | | | |
| | | | | | | | Babul rafters... ... ... | 585 | ... | | | | | | |
| | | | | | | | Bahan posts ... ... .. | 775 | ... | | | | | | |
| | | | | | | | Bhan rafters .. ... ... | 20,100 | ... | | | | | | |
| | | | | | | | Babul outer slabs ... ... | 2 | ... | | | | | | |
| | | | | | | | | | | 21,558 | 657 | | | | |
| | | | | | | | *Forest Depôts.* | | | | | | | | |
| | | | | | | | Babul logs ... ... ... | 26 | ... | | | | | | |
| | | | | | | | Babul sleepers ... ... | 2 | ... | | | | | | |
| | | | | | | | Babul pieces ... ... | 7 | ... | | | | | | |
| | | | | | | | Babul rafters... ... ... | 148 | ... | | | | | | |
| | | | | | | | Babul props... ... ... | 15 | ... | | | | | | |
| | | | | | | | | | | 198 | ... | | | | |
| | | | | | | | *Sale Depôts.* | | | | | | | | |
| | | | | | | | *Forest Depôts.* | | | | | | | | |
| | | | | | | Jerruck Division. | Babul logs ... ... ... | 44 | 138 | | | | | | |
| | | | | | | | | | | 44 | 138 | | | | |
| Total Timber ... | | | | 262,404 | 99,104 | | Total Timber ... | | | 262,404 | 99,104 | | | | |

## FIREWOOD AND CHARCOAL.

### Balance at commencement of the year.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sukkur Division. | *Sale Depôts.* | | | | | | |
| | Firewood ... ... ... | Mds. | 7,191 | ... | 7,191 | 47,501 | |
| | Locomotive fuel ... ... | C. ft. | ... | 47,501 | | | |
| | *Forest Depôts.* | | | | | | |
| | Firewood ... ... ... | Mds. | 13,181 | ... | 13,273 | 3,24,727 | |
| | Locomotive fuel ... ... | C. ft. | ... | 3,24,727 | | | |
| | Babul and Sissoo seed ... ... | Mds. | 92 | ... | | | |
| Nanshahro Division. | *Sale Depôts.* | | | | | | |
| | Firewood ... ... ... | Mds. | ... | ... | ... | ... | |
| | *Forest Depôts.* | | | | | | |
| | Firewood ... ... ... | Mds. | 4,696 | ... | 4,855 | ... | |
| | Locomotive fuel ... ... | C. ft. | ... | ... | | | |
| | Babul seed ... ... ... | Mds. | 159 | ... | | | |
| Hyderabad Division. | *Sale Depôts.* | | | | | | |
| | Firewood ... ... ... | Mds. | 28,497 | ... | 28,764 | 6,268 | |
| | Locomotive fuel ... ... | C. ft. | ... | 6,268 | | | |
| | Charcoal ... ... ... | Mds. | 267 | ... | | | |
| | *Forest Depôts.* | | | | | | |
| | Firewood ... ... ... | Mds. | 4,487 | ... | 4,487 | 39,499 | |
| | Locomotive fuel ... ... | C. ft. | ... | 39,499 | | | |

## FIREWOOD AND CHARCOAL.

| | | | | | | |
|---|---|---|---|---|---|---|
| *Removed by purchasers from Sale Depôts.* | | | | | | |
| Firewood ... ... ... | Mds. | 333,600 | ... | 347,469 | 575,314 | |
| Locomotive fuel ... ... | C. ft. | ... | 575,314 | | | |
| Charcoal ... ... ... | Mds. | 13,869 | ... | | | |
| *Sold Locally.* | | | | | | |
| Firewood ... ... ... | Mds. | 107,396 | ... | 184,033 | 6,846,487 | |
| Locomotive fuel ... ... | C. ft. | ... | 6,846,487 | | | |
| Charcoal ... ... ... | Mds. | 76,618 | ... | | | |
| Babul and Sisso seed ... ... | » | 19 | ... | | | |
| *Transferred to other Sale Depôts.* | | | | | | |
| Firewood ... ... ... | Mds. | 6,381 | ... | 6,381 | ... | |
| Written off. | | | | | | |
| *Sale Depôts.* | | | | | | |
| Charcoal ... ... ... | Mds. | 63 | ... | 63 | ... | |
| *Forest Depôts.* | | | | | | |
| Firewood ... ... ... | Mds. | 3,390 | ... | 3,390 | 21,160 | |
| Locomotive fuel ... ... | C. ft. | ... | 21,160 | | | |
| *Used by the Department.* | | | | | | |
| Babul seed ... ... ... | Mds. | 1,596 | ... | 1,596 | ... | |
| *Transferred to Sale Depôts.* | | | | | | |
| Firewood ... ... ... | Mds. | 1,037 | ... | 1,037 | 1,440 | |
| Locomotive fuel ... ... | C. ft. | ... | 1,440 | | | |

| | | | | | |
|---|---|---|---|---|---|
| *Sale Depôts.* | | | | | |
| Jerruck Division. Firewood ... ... ... Mds. | 1,000 | ... | | | |
| Charcoal ... ... ... " | 13 | ... | 1,013 | ... | |
| *Forest Depôts.* | | | | | |
| Firewood ... ... ... Mds. | 20,538 | | | | |
| Locomotive fuel ... ... C. ft. | ... | | | | |
| Charcoal ... ... ... Mds. | 2,624 | 2,26,935 | | | |
| Babul seed ... ... ... " | 258 | ... | | | |
| Kandi seed ... ... ... " | 13 | ... | 23,433 | 2,26,935 | |
| Total Balance... | | | 83,016 | 6,44,930 | |
| *Received from Forest in Sale Depôts.* | | | | | |
| Firewood ... ... ... ... Mds. | 319,260 | ... | | | |
| Locomotive fuel ... ... ... C. ft. | ... | 5,58,375 | | | |
| Charcoal ... ... ... ... Mds. | 13,702 | ... | 332,962 | 5,58,375 | |
| *Received in Forest Depôts.* | | | | | |
| Firewood ... ... ... ... Mds. | 114,697 | ... | | | |
| Locomotive fuel ... ... ... C. ft. | ... | 68,69,182 | | | |
| Charcoal ... ... ... ... Mds. | 76,811 | ... | | | |
| Babul and Sissoo seed ... ... " | 2,308 | ... | | | |
| Kandi seed ... ... ... " | 13 | ... | 193,229 | 68,69,182 | |
| *Received by transfer in Sale Depôts.* | | | | | |
| Firewood ... ... ... ... Mds. | 6,381 | ... | 6,381 | ... | |
| Total ... | ... | ... | 615,588 | 80,72,487 | |

| | | | | | |
|---|---|---|---|---|---|
| BALANCE AT CLOSE OF THE YEAR. | | | | | |
| *Sale Depôts.* | | | | | |
| Sukkur Division. Firewood ... ... Mds. | 10,126 | ... | | | |
| Locomotive fuel ... ... C. ft. | ... | 9,446 | 10,126 | 9,446 | |
| *Forest Depôts.* | | | | | |
| Firewood ... ... Mds. | 6,581 | ... | | | |
| Locomotive fuel ... ... C. ft. | ... | 233,177 | | | |
| Babul and Sissoo seed ... Mds. | 575 | ... | 7,156 | 2,33,177 | |
| *Sale Depôts.* | | | | | |
| Naushahro Division. Firewood ... ... Mds. | 2,000 | ... | 2,000 | ... | |
| *Forest Depôts.* | | | | | |
| Firewood ... ... Mds. | 6,720 | ... | | | |
| Locomotive fuel ... ... C. ft. | ... | 33,649 | | | |
| Babul seed ... ... Mds. | 159 | ... | 6,879 | 33,649 | |
| *Sale Depôts.* | | | | | |
| Hyderabad Division. Firewood ... ... Mds. | 2,697 | ... | | | |
| Locomotive fuel ... ... C. ft. | ... | 27,384 | | | |
| Charcoal ... ... Mds. | 50 | ... | 2,747 | 27,384 | |
| *Forest Depôts.* | | | | | |
| Firewood ... ... Mds. | 4,075 | ... | | | |
| Locomotive fuel ... ... C. ft. | ... | 106,084 | | | |
| Babul seed ... ... Mds. | 219 | ... | 4,294 | 1,06,084 | |
| *Sale Depôts.* | | | | | |
| Jerruck Division. Firewood ... ... Mds. | 7,525 | ... | 7,525 | ... | |
| *Forest Depôts.* | | | | | |
| Firewood ... ... Mds. | 27,800 | ... | | | |
| Locomotive fuel ... ... C. ft. | ... | 218,346 | | | |
| Charcoal ... ... Mds. | 2,817 | ... | | | |
| Babul seed ... ... " | 249 | ... | | | |
| Kandi seed ... ... " | 26 | ... | 30,892 | 2,18,346 | |
| Total ... | ... | ... | 6,15,588 | 80,72,487 | |

Karachi,
25th October, 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

# FORM No. 60.

## FOREST DEPARTMENT, BOMBAY. SIND CIRCLE.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1893-94.

| | Description of timber and other produce. | On hand at commencement of the year. | | | On hand at close of the year. | | | Difference in value. | |
|---|---|---|---|---|---|---|---|---|---|
| | | No. | Cubic feet. | Value. | No. | Cubic feet. | Value. | In favor of the year. | Against the year. |
| Sukkur Division. | *Sale Depôts.* | | | | | | | | |
| | Bahan logs and dasas | 1,805 | 7,223 | 3,612 | 4,953 | 20,978 | 10,489 | ... | ... |
| | Babul do. do. | 932 | 5,869 | 2,935 | 1,030 | 5,704 | 2,852 | ... | ... |
| | Tali do. do. | 60 | 395 | 197 | ... | ... | ... | ... | ... |
| | Bahan posts | 3,368 | ... | 1,078 | 21,486 | ... | 6,875 | ... | ... |
| | Babul do. | 431 | ... | 138 | 1,188 | ... | 380 | ... | ... |
| | Bahan rafters | 15,618 | ... | 2,265 | 1,833 | ... | 275 | ... | ... |
| | Babul cart axles | 1,136 | ... | 426 | 4,832 | ... | 1,208 | ... | ... |
| | Tali posts | 19 | ... | 5 | ... | ... | ... | ... | ... |
| | Jhau rafters | 1,459 | ... | 88 | ... | ... | ... | ... | ... |
| | Babul do. | ... | ... | ... | 37 | ... | 6 | ... | ... |
| | Total | 24,828 | 13,487 | 10,744 | 35,359 | 26,682 | 22,085 | 11,341 | ... |
| | *Forest Depôts.* | | | | | | | | |
| | Bhan dasas | 300 | ... | 270 | 206 | ... | 185 | ... | ... |
| | Do. rafters | 6,500 | ... | 780 | ... | ... | ... | ... | ... |
| | Total | 6,800 | ... | 1,050 | 206 | ... | 185 | ... | 865 |
| | *Sale Depôts.* | | | | | | | | |
| | Firewood ..... Mds. | 7,191 | ... | 1,294 | 10,126 | ... | 1,823 | ... | ... |
| | Loco fuel ..... C. ft. | ... | 47,501 | 1,948 | ... | 9,446 | 365 | ... | ... |
| | Total | 7,191 | 47,501 | 3,242 | 10,126 | 9,446 | 2,191 | ... | 1,051 |
| | *Forest Depôts.* | | | | | | | | |
| | Firewood ..... Mds. | 13,181 | ... | 1,582 | 6,581 | ... | 790 | ... | ... |
| | Loco fuel ..... C. ft. | ... | 324,727 | 8,843 | ... | 2,33,177 | 6,063 | ... | ... |
| | Babul and Sisso seed Mds. | 92 | ... | 46 | 575 | ... | 288 | ... | 333 |
| | Total | 13,273 | 324,727 | 10,471 | 7,156 | 2,33,177 | 7,141 | ... | 3,330 |
| Naushahro Division. | *Sale Depôts.* | | | | | | | | |
| | Bahan logs | 2 | 13 | 4 | ... | ... | ... | ... | ... |
| | Babul outer slabs | ... | ... | ... | 30 | ... | 7 | ... | ... |
| | Total | 2 | 13 | 4 | 30 | ... | 7 | 3 | ... |
| | *Forest Depôts.* | | | | | | | | |
| | Babul logs | 14 | 84 | 14 | 76 | 544 | 76 | ... | ... |
| | Bahan do. | 1 | 3 | 1 | ... | ... | ... | ... | ... |
| | Lai do. | 1 | 2 | 1 | ... | ... | ... | ... | ... |
| | Kandi do. | 1 | 4 | 1 | ... | ... | ... | ... | ... |
| | Total | 17 | 93 | 17 | 76 | 544 | 76 | 59 | ... |
| | *Sale Depôts.* | | | | | | | | |
| | Firewood ..... Mds. | ... | ... | ... | 2,000 | ... | 400 | 400 | ... |
| | *Forest Depôts.* | | | | | | | | |
| | Firewood ..... Mds. | 4,696 | ... | 845 | 6,720 | ... | 975 | ... | ... |
| | Loco fuel ..... C. ft. | ... | ... | ... | ... | 33,649 | 465 | ... | ... |
| | Babul seed ..... Mds. | 159 | ... | 159 | 159 | ... | 159 | ... | ... |
| | Total | 4,855 | ... | 1,004 | 6,879 | 33,649 | 1,599 | 595 | ... |

## FORM No. 60—*continued.*

| | Description of timber and other produce. | On hand at commencement of the year. | | | On hand at close of the year. | | | Difference in value. | |
|---|---|---|---|---|---|---|---|---|---|
| | | No. | Cubic feet. | Value. | No. | Cubic feet. | Value. | In favor of the year. | Against the year. |
| Hyderabad Division. | *Sale Depôts.* | | | | | | | | |
| | Babul logs | 129 | 951 | 425 | 9 | 625 | 312 | ... | ... |
| | Do. | 1 | ... | 1 | 1 | ... | 1 | ... | ... |
| | Bahan do. | 1 | 7 | 3 | 1 | 7 | 3 | ... | ... |
| | Bahan posts | 650 | ... | 260 | 775 | ... | 310 | ... | ... |
| | Do. rafters | 19,300 | ... | 2,316 | 20,100 | ... | 2,412 | ... | ... |
| | Babul slabs | 37 | ... | 9 | 2 | ... | 1 | ... | ... |
| | Babul planks | 1 | ... | 2 | ... | ... | ... | ... | ... |
| | Do. rafters | 1,556 | ... | 187 | 585 | ... | 70 | ... | ... |
| | Jháu do. | 16,600 | ... | 664 | ... | ... | ... | ... | ... |
| | Babul sleepers | 459 | ... | 1,262 | ... | ... | ... | ... | ... |
| | Do. dasas | 218 | 725 | 362 | 4 | 25 | 12 | ... | ... |
| | Do. bolsters | 1 | ... | 2 | ... | ... | ... | ... | ... |
| | Do. props | 4,985 | ... | 1,495 | ... | ... | ... | ... | ... |
| | Do. posts | 1 | ... | 1 | ... | ... | ... | ... | ... |
| | Total | 43,939 | 1,683 | 6,989 | 21,55 | 657 | 3,121 | ... | 3,868 |
| | *Forest Depôts.* | | | | | | | | |
| | Babul sleepers | 6 | ... | 12 | 2 | ... | 2 | ... | ... |
| | Do. pieces | 7 | ... | 1 | 7 | ... | 1 | ... | ... |
| | Do. rafters | 206 | ... | 31 | 148 | ... | 15 | ... | ... |
| | Do. logs | 26 | ... | 52 | 26 | ... | 52 | ... | ... |
| | Do. props | ... | ... | ... | 15 | ... | 1 | ... | ... |
| | Total | 245 | ... | 96 | 198 | ... | 71 | ... | 25 |
| | *Sale Depôts.* | | | | | | | | |
| | Firewood ..... Mds. | 28,497 | ... | 5,129 | 2,697 | ... | 539 | ... | ... |
| | Loco fuel ..... C. ft. | ... | 6,268 | 263 | ... | 27,384 | 1,050 | ... | ... |
| | Charcoal ..... Mds. | 267 | ... | 167 | 50 | ... | 25 | ... | ... |
| | Total | 28,764 | 6,268 | 5,559 | 2,747 | 27,384 | 1,614 | ... | 3,945 |
| | *Forest Depôts.* | | | | | | | | |
| | Firewood ..... Mds. | 4,487 | ... | 449 | 4,075 | ... | 407 | ... | ... |
| | Loco fuel ..... C. ft. | ... | 39,499 | 908 | ... | 106,084 | 3,395 | ... | ... |
| | Babul seed | ... | ... | ... | 219 | ... | 110 | ... | ... |
| | Total | 4,487 | 39,499 | 1,357 | 4,294 | 106,084 | 3,912 | 2,555 | ... |
| Jerruck Division. | *Sale Depôts.* | | | | | | | | |
| | Babul bolsters | 12 | ... | 60 | ... | ... | ... | ... | 60 |
| | *Forest Depôts.* | | | | | | | | |
| | Babul logs | 19 | 38 | 5 | 44 | 138 | 13 | 8 | ... |
| | *Sale Depôts.* | | | | | | | | |
| | Firewood ..... Mds. | 1,000 | ... | 180 | 7,525 | ... | 1,305 | ... | ... |
| | Charcoal ..... Mds. | 13 | ... | 13 | ... | ... | ... | ... | ... |
| | Total | 1,013 | ... | 193 | 7,525 | ... | 1,305 | 1,112 | ... |
| | *Forest Depôts.* | | | | | | | | |
| | Firewood ..... Mds. | 20,538 | ... | 2,465 | 27,800 | ... | 3,336 | ... | ... |
| | Loco fuel ..... C. ft. | ... | 226,935 | 4,546 | ... | 218,346 | 4,367 | ... | ... |
| | Charcoal ..... Mds. | 2,624 | ... | 945 | 2,817 | ... | 1,070 | ... | ... |
| | Babul seed ..... „ ... | 258 | ... | 129 | 249 | ... | 124 | ... | ... |
| | Kandi seed ..... „ ... | 13 | ... | 6 | 26 | ... | 13 | ... | ... |
| | Total | 23,433 | 226,935 | 8,091 | 30,892 | 218,346 | 8,910 | 819 | ... |

Net difference in favour of the year Rs. 3,748.

Karachi,
25th October 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

# FORM No. 61.

## FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

### Summary of Revenue and Expenditure of the different Divisions for the year 1893-94.

| BUDGET HEADS. | Direction. | Hyderabad Division. | Naushahro Division. | Sukkur Division. | Jerruck Division. | Thar and Parkar Division. | Total for the year 1893-94. | Total Budget Estimate. |
|---|---|---|---|---|---|---|---|---|
| REVENUE. | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. |
| I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY— | | | | | | | | |
| *a.* Timber | ... | 35,963 4 2 | 1,404 0 7 | 15,519 8 2 | 51,617 13 6 | ... | 1,04,507 10 5 | 98,800 |
| *b.* Firewood and charcoal | ... | 1,29,495 1 3 | 75,736 11 11 | 1,39,745 7 8 | 86,352 14 5 | 4,745 8 4 | 4,36,075 11 7 | 5,50,200 |
| *c.* Grass and other minor produce | ... | 5 0 | ... | 222 12 1 | 20 7 0 | ... | 248 3 10 | 1,100 |
| TOTAL I | ... | 1,65,463 5 5 | 77,140 12 6 | 1,55,487 12 8 | 1,37,991 2 11 | 4,745 8 4 | 5,40,831 9 10 | 6,50,000 |
| II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS— | | | | | | | | |
| *a.* Timber | ... | 1,797 9 4 | 878 8 5 | 3,834 10 2 | 814 2 5 | 0 14 0 | 7,325 12 4 | 7,800 |
| *b.* Firewood and charcoal | ... | 4,281 4 0 | 3,775 10 9 | 27,655 1 4 | 510 7 6 | 9 12 0 | 36,232 3 7 | 30,700 |
| *c.* Bamboos | ... | 0 8 | ... | ... | ... | ... | 0 8 0 | ... |
| *d.* Grazing and fodder grass | ... | 11,068 12 3 | 9,360 13 3 | 15,405 3 5 | 11,416 7 0 | 4,094 0 0 | 51,365 3 11 | 53,800 |
| *e.* Other minor produce | ... | 15,630 8 3 | 2,298 7 2 | 1,644 8 3 | 4,060 8 2 | 265 13 0 | 23,809 12 10 | 25,200 |
| TOTAL II | ... | 32,789 9 10 | 16,223 7 7 | 48,539 7 2 | 16,801 9 1 | 4,370 7 0 | 1,18,733 8 8 | 1,17,500 |
| III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE | ... | 1 4 0 | 40 0 0 | ... | ... | ... | 41 4 0 | ... |
| TOTAL III | ... | 1 4 0 | 40 0 0 | ... | ... | ... | 41 4 0 | ... |
| V.—MISCELLANEOUS— | | | | | | | | |
| *a.* Returns | ... | 12 0 0 | ... | ... | 0 2 6 | ... | 12 2 6 | ... |
| *b.* Other sources | 5 0 0 | 4,422 8 9 | 11,061 6 0 | 12,510 14 2 | 1,177 14 11 | ... | 29,177 11 10 | 26,700 |
| TOTAL V | 5 0 0 | 4,434 8 9 | 11,061 6 0 | 12,510 14 2 | 1,178 1 5 | ... | 29,189 14 4 | 26,700 |
| GRAND TOTAL REVENUE | 5 0 0 | 2,02,709 12 6 | 1,04,465 10 1 | 2,16,538 2 0 | 1,55,970 13 5 | 9,115 15 4 | 6,88,796 4 10 | 7,95,000 |
| EXPENDITURE. | | | | | | | | |
| *A—Conservancy and Works.* | | | | | | | | |
| I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY— | | | | | | | | |
| *a.* Timber | ... | 17,984 11 3 | 392 8 0 | 3,772 5 10 | 41,676 0 8 | ... | 63,825 9 9 | 52,075 |
| *b.* Firewood and charcoal | ... | 72,794 12 9 | 51,920 2 5 | 77,430 13 10 | 57,533 7 9 | 3,805 5 9 | 2,63,0 4 10 6 | 3,50,200 |
| *c.* Grass and other minor produce | ... | 879 11 6 | ... | ... | 60 1 8 | ... | 939 13 2 | 800 |
| TOTAL A I | ... | 91,159 3 6 | 52,312 10 5 | 81,203 3 8 | 99,289 10 1 | 3,805 5 9 | 3,27,770 1 5 | 4,33,075 |
| II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS | ... | 67 8 0 | 187 7 4 | ... | 6 15 3 | ... | 261 14 7 | 300 |
| TOTAL A II | ... | 67 8 0 | 187 7 4 | ... | 6 15 3 | ... | 261 14 7 | 300 |
| VI.—LIVE STOCK, STORES, TOOLS AND PLANT— | | | | | | | | |
| *a.* Purchase of cattle | ... | ... | ... | ... | ... | ... | ... | 300 |
| *b.* Feed and keep of cattle | ... | 3 7 0 | ... | 54 12 0 | ... | ... | 58 3 0 | 300 |
| *c.* Purchase of stores, tools and plant | 76 8 0 | 3,85 8 0 | 11 12 0 | 15 8 0 | 145 6 6 | 5 0 0 | 4,105 10 6 | 10,700 |
| TOTAL A VI | 76 8 0 | 3,854 15 0 | 11 12 0 | 70 4 0 | 145 6 6 | 5 0 0 | 4,163 13 6 | 11,300 |
| TOTAL OF HEADS A I TO A VI | 76 8 0 | 95,081 10 6 | 52,511 13 9 | 81,273 7 8 | 99,441 15 10 | 3,810 5 9 | 3,32,195 13 6 | 4,44,675 |
| VII.—COMMUNICATIONS AND BUILDINGS— | | | | | | | | |
| *a.* Roads and bridges | ... | ... | ... | ... | ... | ... | ... | 50 |
| *b.* Buildings | ... | 991 5 9 | 59 0 0 | 12 6 2 | 42 0 0 | ... | 1,095 5 11 | 1,900 |
| *c.* Other works | ... | ... | ... | 0 6 0 | 2 4 0 | 7 0 0 | 9 10 0 | ... |
| TOTAL A VII | ... | 991 5 9 | 59 0 0 | 12 6 2 | 44 4 0 | 7 0 0 | 1,104 15 11 | 1,950 |
| VIII.—ORGANIZATION, IMPROVEMENT, AND EXTENSION OF FORESTS— | | | | | | | | |
| *a.* Demarcation | ... | 29 10 9 | ... | 5 0 0 | ... | ... | 34 10 9 | 1,150 |
| *b.* Cost of settlements; compensation for land and rights | ... | 3,981 12 3 | ... | ... | ... | ... | 3,981 12 3 | 3,000 |
| *c.* Working plans | ... | 110 3 2 | 111 2 0 | 330 4 0 | 941 0 6 | ... | 1,492 9 8 | 4,100 |
| *d.* Sowing and planting | ... | 1,018 2 0 | 5 14 0 | 2,998 3 5 | 955 5 11 | ... | 4,077 9 4 | 3,800 |
| *e.* Protection from fire | ... | ... | ... | ... | ... | ... | ... | 100 |
| *f.* Other works | ... | 1,117 8 3 | 479 12 0 | 15 0 0 | 708 11 7 | 105 0 0 | 2,455 15 10 | 7,400 |
| TOTAL A VIII | ... | 6,267 4 5 | 596 12 0 | 2,448 7 5 | 2,605 2 0 | 105 0 0 | 12,042 9 10 | 19,550 |
| IX.—MISCELLANEOUS— | | | | | | | | |
| *a.* Other charges | ... | 336 12 6 | 118 2 0 | 83 14 8 | 67 3 6 | ... | 609 0 8 | 3,000 |
| TOTAL A IX | ... | 336 12 6 | 118 2 0 | 86 14 8 | 67 3 6 | ... | 609 0 8 | 3,000 |
| TOTAL A. CONSERVANCY AND WORKS | 76 8 0 | 1,02,697 1 2 | 53,276 11 9 | 83,821 3 11 | 1,02,158 9 4 | 3,922 5 9 | 3,45,952 7 11 | 4,69,175 |
| *B.—Establishments.* | | | | | | | | |
| I.—SALARIES— | | | | | | | | |
| *a.* Superior Officers | 10,000 0 0 | 5,350 0 0 | 8,26 10 8 | 3,024 13 11 | 10,112 13 2 | ... | 37,414 5 9 | 32,850 |
| *Exchange Compensation Allowance* | 983 12 9 | ... | 571 10 9 | ... | ... | ... | 1,559 7 6 | ... |
| *b.* Subordinate Forest and Depot Establishments | ... | 8,888 13 3 | 7,759 12 3 | 14,719 12 2 | 6,000 2 8 | 210 0 0 | 37,599 8 4 | 39,380 |
| *c.* Office Establishments | 3,536 3 8 | 1,506 5 5 | 1,294 3 7 | 1,716 13 7 | 1,335 3 11 | 94 5 7 | 9,583 3 9 | 9,540 |
| *d.* Deputation and Special Allowances | ... | ... | ... | ... | ... | ... | ... | 500 |
| TOTAL B I | 15,520 0 5 | 15,745 2 8 | 17,743 5 3 | 19,461 7 8 | 17,478 3 9 | 304 5 7 | 86,152 9 4 | 82,270 |
| II.—TRAVELLING ALLOWANCES— | | | | | | | | |
| *a.* Superior Officers | 2,564 8 0 | 1,200 0 0 | 2,170 8 1 | 872 3 0 | 2,012 14 0 | ... | 8,820 1 1 | 8,530 |
| *b.* Subordinate Forest and Depot Establishments | ... | 771 1 5 | 712 0 7 | 1,103 10 3 | 580 14 4 | 105 0 0 | 3,271 10 7 | 3,300 |
| *c.* Office Establishments | 1,247 1 2 | 536 7 10 | 455 11 3 | 688 5 5 | 420 5 4 | ... | 3,347 15 0 | 3,290 |
| TOTAL B II | 3,811 9 2 | 2,506 9 3 | 3,338 3 11 | 2,664 2 8 | 3,014 1 8 | 105 0 0 | 15,439 10 8 | 15,010 |
| III.—CONTINGENCIES— | | | | | | | | |
| *a.* Stationery | 22 13 0 | 89 10 0 | 82 15 4 | 222 9 3 | 75 4 0 | 3 4 3 | 496 7 10 | 514 |
| *b.* Carriage of Tents and Records | 325 4 6 | 128 13 8 | 139 0 11 | 151 11 5 | 127 14 0 | ... | 872 12 6 | 840 |
| *c.* Rents, Rates and Taxes | 240 0 0 | 240 0 0 | 240 0 0 | 78 0 0 | 240 0 0 | ... | 1,038 0 0 | 1,188 |
| *d.* Official Postage | 198 8 0 | 245 14 0 | 216 12 0 | 712 9 6 | 207 10 6 | 10 6 0 | 1,621 11 0 | 1,515 |
| *e.* Sundries | 337 14 3 | 137 5 3 | 151 14 3 | 168 9 5 | 177 15 1 | 1 14 0 | 975 8 3 | 1,661 |
| TOTAL B III | 1,124 7 9 | 841 1 11 | 860 9 6 | 1,333 7 7 | 828 11 7 | 15 8 3 | 5,004 7 7 | 5,708 |
| TOTAL B. ESTABLISHMENTS | 20,356 1 4 | 19,093 6 10 | 21,942 2 8 | 23,459 1 11 | 21,321 1 0 | 424 13 10 | 1,06,596 11 7 | 1,02,988 |
| GRAND TOTAL OF EXPENDITURE | 20,432 9 4 | 1,21,790 8 0 | 75,218 14 5 | 1,07,280 5 10 | 1,23,479 10 4 | 4,347 3 7 | 4,52,549 3 6 | 5,72,100 |

No. F.

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

*Office of the Accountant General, Bombay,*
*Dated August, 1894.*

O. T. BARROW,
Accountant General.

## FORM No. 61.

### FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Summary of Revenue and Expenditure of the different Divisions for the year, July 1893 to June 1894.

| BUDGET HEADS. | Direction. | Hyderabad Division. | Nawshahro Division. | Sukkur Division. | Jerruck Division. | Thar and Parkar Division. | Total up to July 1893 to June 1894. |
|---|---|---|---|---|---|---|---|
| REVENUE. | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. |
| I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY— | | | | | | | |
| *a.* Timber ... ... ... ... ... ... ... | ... | 40,423 6 6 | 1,896 8 7 | 16,391 2 0 | 48,764 0 1 | ... | 1,07,490 0 8 |
| *b.* Firewood and charcoal ... ... ... ... | ... | 1,32,403 0 9 | 78,866 3 5 | 1,31,479 1 6 | 78,197 3 7 | 5,564 12 10 | 4,26,510 5 7 |
| *c.* Grass and other minor produce ... ... ... | ... | 5 0 0 | ... | 265 7 4 | 20 7 0 | ... | 290 14 4 |
| TOTAL I ... | ... | 1,72,846 6 9 | 80,762 12 0 | 1,48,135 10 4 | 1,26,981 10 8 | 5,564 12 10 | 5,34,291 4 7 |
| II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS— | | | | | | | |
| *a.* Timber ... ... ... ... ... ... ... | ... | 2,045 13 7 | 1,042 8 8 | 3,794 3 9 | 1,067 2 2 | 35 14 0 | 7,991 10 2 |
| *b.* Firewood and charcoal ... ... ... ... | ... | 4,070 5 3 | 3,645 13 0 | 27,343 1 6 | 519 14 6 | 19 12 0 | 35,598 14 3 |
| *c.* Bamboos ... ... ... ... ... ... | ... | 0 8 0 | ... | ... | ... | ... | 0 8 0 |
| *d.* Grazing and fodder grass ... ... ... ... | ... | 12,193 14 3 | 8,866 15 3 | 15,681 9 9 | 11,593 13 0 | 4,611 0 0 | 52,952 4 3 |
| *e.* Other minor produce ... ... ... ... ... | ... | 17,583 9 10 | 2,285 12 0 | 1,143 12 3 | 3,266 8 2 | 375 11 0 | 24,655 5 3 |
| TOTAL II ... | ... | 35,894 2 11 | 15,847 0 11 | 47,962 11 3 | 16,452 5 10 | 5,042 5 0 | 1,21,198 9 11 |
| III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE ... ... ... ... ... ... ... | ... | 10 10 0 | ... | ... | ... | ... | 10 10 0 |
| TOTAL III ... | ... | 10 10 0 | ... | ... | ... | ... | 10 10 0 |
| V.—MISCELLANEOUS— | | | | | | | |
| *a.* Refunds ... ... ... ... ... ... ... | ... | 12 0 0 | 151 12 0 | 0 0 2 | 2 9 1 | ... | 166 5 3 |
| *b.* Other sources ... ... ... ... ... ... | 5 0 0 | 3,436 3 2 | 9,299 15 7 | 9,434 5 6 | 1,409 3 0 | ... | 23,584 11 3 |
| TOTAL V ... | 5 0 0 | 3,448 3 2 | 9,451 11 7 | 9,434 5 8 | 1,411 12 1 | ... | 23,751 0 6 |
| GRAND TOTAL REVENUE... ... | 5 0 0 | 2,12,199 6 10 | 1,06,061 8 6 | 2,05,532 11 3 | 1,44,845 12 7 | 10,607 1 10 | 6,79,251 9 0 |
| EXPENDITURE. | | | | | | | |
| *A—Conservancy and Works.* | | | | | | | |
| I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY— | | | | | | | |
| *a.* Timber ... ... ... ... ... ... ... | ... | 16,718 10 1 | 715 10 0 | 5,079 7 8 | 35,011 10 2 | ... | 57,525 5 11 |
| *b.* Firewood and charcoal ... ... ... ... | ... | 70,139 5 4 | 52,394 12 9 | 94,469 2 6 | 53,660 14 4 | 3,895 5 9 | 2,74,469 8 8 |
| *c.* Grass and other minor produce ... ... ... | ... | 879 8 0 | ... | ... | 61 3 8 | ... | 940 11 8 |
| TOTAL A I ... | ... | 87,737 7 5 | 53,110 6 9 | 99,548 10 2 | 88,733 12 2 | 3,895 5 9 | 3,32,935 10 3 |
| II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS ... ... | ... | 32 1 0 | 195 1 4 | ... | 6 4 0 | ... | 233 6 4 |
| TOTAL A II ... | ... | 32 1 0 | 195 1 4 | ... | 6 4 0 | ... | 233 6 4 |
| VI.—LIVE STOCK, STORES, TOOLS AND PLANT— | | | | | | | |
| *a.* Feed and keep of cattle ... ... ... ... | ... | 3 7 0 | ... | 67 8 0 | ... | ... | 70 15 0 |
| *b.* Purchase of stores, tools and plant ... | 76 8 0 | 3,870 4 0 | 12 8 0 | 11 2 0 | 71 2 0 | 5 0 0 | 4,046 8 0 |
| TOTAL A VI ... | 76 8 0 | 3,873 11 0 | 12 8 0 | 78 10 0 | 71 2 0 | 5 0 0 | 4,117 7 0 |
| TOTAL OF HEADS A I TO A VI ... | 76 8 0 | 91,643 3 5 | 53,318 0 1 | 99,627 4 2 | 88,811 2 2 | 3,810 5 9 | 3,37,286 7 7 |
| VII.—COMMUNICATIONS AND BUILDINGS— | | | | | | | |
| *a.* Buildings ... ... ... ... ... ... | ... | 991 5 9 | 167 0 0 | ... | 47 0 0 | ... | 1,205 5 9 |
| *b.* Other works ... ... ... ... ... ... | ... | ... | ... | ... | ... | 7 0 0 | 7 0 0 |
| TOTAL A VII ... | ... | 991 5 9 | 167 0 0 | ... | 47 0 0 | 7 0 0 | 1,212 5 9 |
| VIII.—ORGANIZATION, IMPROVEMENT, AND EXTENSION OF FORESTS— | | | | | | | |
| *a.* Demarcation ... ... ... ... ... ... | ... | ... | 12 0 0 | ... | ... | ... | 12 0 0 |
| *b.* Cost of settlements; compensation for land and rights | ... | 3,703 8 4 | ... | ... | ... | ... | 3,703 8 4 |
| *c.* Working plans ... ... ... ... ... ... | ... | 445 2 8 | 239 14 0 | 149 6 0 | 645 0 6 | ... | 1,479 7 2 |
| *d.* Sowing and planting ... ... ... ... ... | ... | 1,053 9 11 | 5 14 0 | 2,078 10 1 | 971 13 8 | ... | 4,109 15 8 |
| *e.* Other works ... ... ... ... ... ... | ... | 1,162 0 3 | 457 2 8 | 15 0 0 | 691 13 11 | 105 0 0 | 2,431 0 10 |
| TOTAL A VIII ... | ... | 6,364 5 2 | 714 14 8 | 2,243 0 1 | 2,308 12 1 | 105 0 0 | 11,736 0 0 |
| IX.—MISCELLANEOUS— | | | | | | | |
| *a.* Refunds ... ... ... ... ... ... ... | ... | ... | ... | ... | 640 0 0 | ... | * 640 0 0 |
| *b.* Other charges ... ... ... ... ... ... | ... | 338 7 6 | 118 1 0 | 93 11 6 | 49 13 6 | ... | 600 1 6 |
| | ... | ... | ... | ... | *640 0 0* | ... | *— 640 0 0* |
| TOTAL A IX ... | ... | 338 7 6 | 118 1 0 | 93 11 6 | 49 13 6 | ... | 600 1 6 |
| TOTAL A. CONSERVANCY AND WORKS ... | 76 8 0 | 99,337 5 10 | 54,317 15 9 | 1,01,963 15 9 | 90,576 11 9 | 3,922 5 9 | 3,50,194 14 10 |
| *B.—Establishments.* | | | | | | | |
| I.—SALARIES— | | | | | | | |
| *a.* Superior Officers ... ... ... ... ... | 11,610 0 0 | 5,342 13 9 | 7,526 10 8 | 3,374 13 11 | 9,401 13 8 | ... | 37,256 4 0 |
| *Exchange Compensation Allowance* ... | 1,466 13 6 | ... | 741 14 3 | ... | ... | ... | 2,208 11 9 |
| *b.* Subordinate Forest and Depôt Establishments.. | ... | 8,910 12 6 | 7,869 4 6 | 14,347 3 1 | 6,390 15 4 | 250 0 0 | 37,777 3 5 |
| *c.* Office Establishments ... ... ... .. | 3,770 15 6 | 1,525 4 4 | 1,308 1 8 | 1,786 15 8 | 1,305 12 5 | 112 5 7 | 9,809 7 2 |
| *d.* Deputation and Special Allowances ... .. | ... | 40 0 0 | ... | ... | 200 0 0 | ... | 240 0 0 |
| TOTAL B I .. | 16,847 13 0 | 15,827 14 7 | 17,445 15 1 | 19,509 0 8 | 17,298 9 5 | 362 5 7 | 87,291 10 4 |
| II.—TRAVELLING ALLOWANCES— | | | | | | | |
| *a.* Superior Officers ... ... ... ... ... | 2,580 0 0 | 1,200 0 0 | 1,990 8 1 | 909 5 4 | 2,123 0 6 | ... | 8,802 13 11 |
| *b.* Subordinate Forest and Depot Establishments... | ... | 765 4 5 | 761 1 7 | 1,070 7 9 | 623 3 8 | 125 0 0 | 3,351 1 5 |
| *c.* Office Establishments ... ... ... ... | 1,467 8 8 | 540 13 3 | 447 0 7 | 780 2 10 | 420 5 4 | ... | 3,655 14 8 |
| TOTAL B II .. | 4,047 8 8 | 2,506 1 8 | 3,198 10 3 | 2,759 15 11 | 3,172 9 6 | 125 0 0 | 15,809 14 Q |
| III.—CONTINGENCIES— | | | | | | | |
| *a.* Stationery ... ... ... ... ... ... | 24 14 6 | 87 4 0 | 78 4 4 | 141 10 0 | 79 13 0 | 4 3 3 | 416 1 1 |
| *b.* Carriage of Tents and Records ... ... | 356 6 6 | 128 13 8 | 142 12 4 | 223 3 6 | 190 5 1 | ... | 1,041 9 1 |
| *c.* Rents, Rates and Taxes ... ... ... | 205 0 0 | 240 0 0 | 240 0 0 | 78 0 0 | 240 0 0 | ... | 1,003 0 0 |
| *d.* Official Postage ... ... ... ... | 169 7 0 | 252 11 6 | 281 6 6 | 762 1 0 | 227 6 0 | 10 7 6 | 1,703 7 6 |
| *e.* Sundries... ... ... ... ... ... | 316 12 3 | 143 13 0 | 171 12 9 | 145 3 7 | 229 8 11 | 1 14 0 | 1,009 0 6 |
| TOTAL B III ... | 1,072 8 3 | 852 10 2 | 914 3 11 | 1,350 2 1 | 967 1 0 | 16 8 9 | 5,173 2 2 |
| TOTAL B. ESTABLISHMENTS ... | 21,967 13 11 | 19,186 10 5 | 21,558 13 3 | 23,619 2 8 | 21,438 3 11 | 503 14 4 | 1,08,274 10 6 |
| GRAND TOTAL OF EXPENDITURE ... | 22,044 5 11 | 1,18,524 0 3 | 75,876 13 0 | 1,25,583 2 5 | 1,20,014 15 8 | 4,426 4 1 | 4,58,469 9 4 |

* Erroneous debit adjusted in the accounts for July, 1893.

No. F / 15510.

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

*Office of the Accountant General, Bombay,*
*Dated 8th September, 1894.*

O. T. BARROW,
Accountant General.

# FORM No. 62.

## FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—ANNUAL ACCOUNT CURRENT FOR THE YEAR 1893-94.

| | Rs. a. p. | Rs. a. p. | | Rs. a. p. | Rs. a. p. |
|---|---|---|---|---|---|
| To opening Balance ... ... ... ... ... ... | ... | 69 10 6 | 1. Refunds and Drawbacks—Refunds— | | |
| VIII—Assessed Taxes—Income Tax— | | | Divided Heads, Forest ... ... ... ... ... | ... | 729 9 9 |
| Deductions by Government from Salaries and Pensions ... ... | ... | 1,192 8 5 | 11. Forest (as per summary) ... ... ... ... ... | ... | 4,52,549 3 6 |
| IX—Forest (as per summary) ... ... ... ... ... | ... | 6,88,796 4 10 | 19. Law and Justice— | | |
| Revenue Deposits, (Forest) ... ... ... ... ... ... | ... | 1,572 10 0 | Jails, District Jails, Contingencies, ... ... ... ... | ... | 410 0 9 |
| Cheques and Bills (Departmental Cheques), Forest ... ... ... | ... | 4,72,698 10 10 | Revenue Deposits (Forests) ... ... ... ... ... ... | ... | 1,831 4 0 |
| Advances Recoverable— | | | Cheques and Bills (Forests Cheques cancelled) ... ... ... ... | ... | 629 0 9 |
| Forest Advances ... ... ... ... ... ... | ... | 2,64,326 7 6 | Advances Recoverable— | | |
| Cash recoveries ... ... ... ... ... ... ... | ... | 2,363 13 5 | Forest advances ... ... ... ... ... ... | ... | 2,84,194 2 0 |
| Forest Remittances— | | | Cash Recoveries ... ... ... ... ... ... ... | ... | 2,363 13 5 |
| Remittances to Treasuries ... ... ... ... ... | 17 1 0 | ... | Forest Remittances— | | |
| Inter-Departmental Transfers ... ... ... ... ... | 96 0 6 | ... | Remittances to Treasuries ... ... ... ... ... | ... | 3,38,440 6 11 |
| | | 113 1 6 | Accounts Current— | | |
| BOMBAY UNCOVENANTED SERVICE F. P. FUND— | | | Account between Bombay and Military, Bombay— | | |
| Widows' Branch ... ... ... ... ... ... | ... | 961 14 0 | IV. Items adjustable by Military ... ... ... ... | ... | 41,285 2 1 |
| Account between Bombay and Public Works Department, (Railway Branch) North Western Railway— | | | Account between Bombay and P. W. D., Bombay—(Ordinary Branches)— | | |
| IV. Items adjusted by P. W. D., Inter Departmental charges ... ... | ... | 300 0 0 | IV. Items adjustable by P. W. D. ... ... ... ... | ... | 9,104 2 9 |
| Account between Bombay and P. W. D., Bombay— | | | Military Works ... ... ... ... ... ... | ... | 530 1 7 |
| IV. Payments into Treasuries by Civil Officers on account of Public Works Department ... ... ... ... ... ... | ... | 299 4 7 | Account between Bombay and P. W. D., (Railway Branch) N. W. Railway— | | |
| IV. Items adjustable by P. W. D., Miscellaneous ... ... ... | ... | 330 1 7 | IV. Items adjustable by P. W. D. ... ... ... ... | ... | 2,75,781 6 9 |
| | | | Account between Bombay and Military Bengal Western Circle— | | |
| | | | IV. Items adjustable by Military, Miscellaneous ... ... ... | ... | 25,155 15 5 |
| | | | Closing Balance ... ... ... | ... | 129 7 6 |
| Total Rs ... | ... | 14,33,033 7 2 | Total Rs... | ... | 14,33,033 7 2 |

No. F. 12299.

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 6th August 1893.

O. T. BARROW,
Accountant General.

FORM No. 62 Sections 265 and 267 of the F. D. C.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—ANNUAL ACCOUNT CURRENT FOR THE FOREST YEAR 1893-94, JULY 1893 TO JUNE 1894.

| | Rs. a. p. | Rs. a. p. |
|---|---|---|
| To opening Balance ... ... ... ... ... ... | ... | 217 5 3 |
| VIII. ASSESSED TAXES—INCOME TAX— | | |
| Deductions by Government from Salaries and Pensions ... ... | ... | 1,201 6 7 |
| IX—Forest (as per summary) ... ... ... ... ... | ... | 6,79,251 9 0 |
| Revenue Deposits (Forest) ... ... ... ... ... ... | ... | 1,168 4 8 |
| Cheques and Bills (Departmental cheques), Forest ... ... ... | ... | 4,50,584 4 6 |
| ADVANCES RECOVERABLE— | | |
| Forest Advances ... ... ... ... ... ... | 2,70,957 13 10 | |
| Tentage Advances ... ... ... ... ... ... | ... | 2,71,157 13 10 |
| Objection Book Advances ... ... ... ... ... | 200 0 0 | |
| Cash Recoveries ... ... ... ... ... ... ... | ... | 2,360 6 7 |
| FOREST REMITTANCES— | | |
| Remittances to Treasuries ... ... ... ... ... | 17 1 0 | |
| Inter-Divisional Transfers ... ... ... ... ... | ... | 113 1 6 |
| Inter-Departmental Transfers ... ... ... ... ... | 96 0 6 | |
| BOMBAY UNCOVENANTED SERVICE F. P. FUND— | | |
| Widows' Branch ... ... ... ... ... ... | ... | 1,042 0 6 |
| Account between Bombay and Public Works Department, Railway Branch North Western Railway— | | |
| IV—Items adjustable by Public Works Department ... ... ... | ... | 300 0 0 |
| Account between Bombay and P. W. D., Bombay— | | |
| IV—Payments into Treasuries by Civil Officers on account of P. W. D | ... | 241 10 10 |
| IV—Items adjustable by P. W. D., Miscellaneous ... ... | ... | 339 1 7 |
| Total Rs... | | 14,07,977 0 10 |

| | Rs. a. p. | Rs. a. p. |
|---|---|---|
| 1. Refunds and Drawbacks—Refunds— | | |
| Divided Heads, Forest ... ... ... ... ... | ... | 833 7 3 |
| 11. Forest (as per summary) ... ... ... ... ... | ... | 4,58,469 9 4 |
| 19. Law and Justice— | | |
| Jails, District Jails, Contingencies ... ... ... ... | ... | 402 5 11 |
| Revenue Deposits (Forests) ... ... ... ... ... | ... | 1,457 7 0 |
| Cheques and Bills (Forests Cheques cancelled ... ... ... ... | ... | 83 0 9 |
| Advances Recoverable— | | |
| Forest Advances ... ... ... ... ... ... | ... | |
| Tentage Advances ... ... ... ... ... ... | ... | 2,63,977 9 2 |
| Objection Book Advances ... ... ... ... ... | ... | |
| Cash Recoveries ... ... ... ... ... ... | ... | 2,360 6 7 |
| Forest Remittances— | | |
| Remittances to Treasuries ... ... ... ... ... | ... | 3,46,969 11 5 |
| Accounts Current— | | |
| Account between Bombay and Military, Bombay— | | |
| IV. Items adjustable by Military ... ... ... ... | ... | 36,627 6 0 |
| Account between Bombay and P. W. D., Bombay—(Ordinary Branches)— | | |
| IV. Items adjustable by P. W. D. ... ... ... ... | ... | 8,066 10 11 |
| Military Works ... ... ... ... ... ... | ... | 530 1 7 |
| Account between and P. W. D. (Railway Branch) N. W. Railway— | | |
| IV. Items adjustable by P. W. D. ... ... ... ... | ... | 2,54,599 4 9 |
| Account between Bombay and Military Bengal Western Circle— | | |
| IV. Items adjustable by Military, Miscellaneous ... ... | ... | 32,808 1 5 |
| Closing Balance ... ... ... | ... | 101 14 9 |
| Total ... | | 14,07,977 0 10 |

No. F. / 15197

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 8th September 1894.

O. T. BARROW,
Accountant General.

# FORM No. 63.

## FOREST DEPARTMENT, BOMBAY, SIND CIRCLE—REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1893-94.

| Divisions. | Particulars. | Outstandings at commencement of year. | Value of sales and other Revenue during year. | Total. | Amount realised during the year. | Balance due to the Department at end of year. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Sukkur | I.—Timber and other produce removed from the forests by Government agency— | | | | | | |
| | (a) Timber | ..... | 15,519 8 2 | 15,519 8 2 | 15,519 8 2 | ..... | |
| | (b) Firewood and charcoal | 864 8 8 | 1,38,929 15 0 | 1,39,794 7 8 | 1,39,745 7 8 | 49 0 0 | The outstandings under VC at the close of the year amounts to Rs. 58-2-1 |
| | (c) Grass and other minor produce | ..... | 222 12 10 | 222 12 10 | 222 12 10 | ..... | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | |
| | (a) Timber | ..... | 3,842 10 2 | 3,842 10 2 | 3,834 10 2 | 8 0 0 | |
| | (b) Firewood and charcoal | ..... | 27,655 1 4 | 27,655 1 4 | 27,655 1 4 | ..... | |
| | (d) Grazing and fodder grass | ..... | 15,405 3 5 | 15,405 3 5 | 15,405 3 5 | ..... | |
| | (e) Other minor produce | 54 12 0 | 1,589 12 3 | 1,644 8 3 | 1,644 8 3 | ..... | |
| | III.—Confiscated drift and waif wood | ..... | ..... | ..... | ..... | ..... | |
| | Total... | 919 4 8 | 2,03,164 15 2 | 2,04,084 3 10 | 2,04,027 3 10 | 57 0 0 | |
| Naushahro | I.—Timber and other produce removed from the forests by Government agency— | | | | | | |
| | (a) Timber | ..... | 1,404 0 7 | 1,404 0 7 | 1,404 0 7 | ..... | |
| | (b) Firewood and charcoal | 182 0 0 | 76,060 2 7 | 76,242 2 7 | 75,736 11 11 | 505 6 8 | The outstandings under VC at the close of the year amounts to Rs. 344-0-0 |
| | (c) Grass and other minor produce | ..... | ..... | ..... | ..... | ..... | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | |
| | (a) Timber | ..... | 878 8 5 | 878 8 5 | 878 8 5 | ..... | |
| | (b) Firewood and charcoal | ..... | 3,775 10 9 | 3,775 10 9 | 3,775 10 9 | ..... | |
| | (d) Grazing and fodder grass | ..... | 9,360 13 3 | 9,360 13 3 | 9,360 13 3 | ..... | |
| | (e) Other minor produce | ..... | 2,208 7 2 | 2,208 7 2 | 2,208 7 2 | ..... | |
| | III.—Confiscated drift and waif wood | ..... | 40 0 0 | 40 0 0 | 40 0 0 | ..... | |
| | Total... | 182 0 0 | 93,727 10 9 | 93,909 10 9 | 93,404 4 1 | 505 6 8 | |
| Hyderabad | I.—Timber and other produce removed from the forests by Government agency— | | | | | | |
| | (a) Timber | 129 15 10 | 36,451 6 6 | 36,581 6 4 | 35,966 4 2 | 615 2 2 | |
| | (b) Firewood and charcoal | 2,110 2 11 | 1,27,612 5 6 | 1,29,722 8 5 | 1,29,495 1 3 | 227 7 2 | |
| | (c) Grass and other minor produce | ..... | 5 0 0 | 5 0 0 | 5 0 0 | ..... | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | |
| | (a) Timber | ..... | 1,797 9 4 | 1,797 9 4 | 1,797 9 4 | ..... | |
| | (b) Firewood and charcoal | ..... | 4,281 4 0 | 4,281 4 0 | 4,281 4 0 | ..... | |
| | (c) Bamboos | ..... | 0 8 0 | 0 8 0 | 0 8 0 | ..... | |
| | (d) Grazing and fodder grass | ..... | 11,088 12 3 | 11,088 12 3 | 11,088 12 3 | ..... | |
| | (e) Other minor produce | ..... | 15,630 8 3 | 15,630 8 3 | 15,630 8 3 | ..... | |
| | III.—Confiscated drift and waifwood | ..... | 1 4 0 | 1 4 0 | 1 4 0 | ..... | |
| | Total... | 2,240 2 9 | 1,96,868 9 10 | 1,99,108 12 7 | 1,98,266 3 3 | 842 9 4 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Jerruck ...** | I.—Timber and other produce removed from the forests by Government agency— | | | | | | |
| | (*a*) Timber | ..... | 54,389 14 1 | 54,389 14 1 | 51,617 13 6 | 2,772 0 7 | |
| | (*b*) Firewood and charcoal | 120 0 0 | 86,790 6 5 | 86,910 6 5 | 86,352 14 5 | 557 8 0 | |
| | (*c*) Grass and other minor produce | ..... | 20 7 0 | 20 7 0 | 20 7 0 | ..... | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | |
| | (*a*) Timber | ..... | 814 2 5 | 814 2 5 | 814 2 5 | ..... | |
| | (*b*) Firewood | ..... | 510 7 6 | 510 7 6 | 510 7 6 | ..... | |
| | (*c*) Grazing and fodder grass | ..... | 11,416 7 0 | 11,416 7 0 | 11,416 7 0 | ..... | |
| | (*d*) Other minor produce | ..... | 4,060 8 2 | 4,060 8 2 | 4,060 8 2 | ..... | |
| | III.—Confiscated drift and waif wood | ..... | ..... | ..... | ..... | ..... | |
| | Total... | 120 0 0 | 1,58,002 4 7 | 1,58,122 4 7 | 1,54,792 12 0 | 3,329 8 7 | |
| **Thar and Parkar...** | I.—Timber and other produce removed from the forests by Government agency— | | | | | | |
| | (*a*) Timber | ..... | ..... | ..... | ..... | ..... | |
| | (*b*) Firewood and charcoal | ..... | 5,564 12 10 | 5,564 12 10 | 4,745 8 4 | 819 4 6 | |
| | (*c*) Grass and other minor produce | ..... | ..... | ..... | ..... | ..... | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | |
| | (*a*) Timber | ..... | 0 14 0 | 0 14 0 | 0 14 0 | ..... | |
| | (*b*) Firewood and charcoal | ..... | 9 12 0 | 9 12 0 | 9 12 0 | ..... | |
| | (*c*) Bamboos | ..... | ..... | ..... | ..... | ..... | |
| | (*d*) Grazing and fodder grass | ..... | 4,094 0 0 | 4,094 0 0 | 4,094 0 0 | ..... | |
| | (*e*) Other minor produce | ..... | 265 13 0 | 265 13 0 | 265 13 0 | ..... | |
| | III.—Confiscated drift and waif wood | ..... | ..... | ..... | ..... | ..... | |
| | Total... | ..... | 9,935 3 10 | 9,935 3 10 | 9,115 15 4 | 819 4 6 | |
| **Total, Sind Circle ...** | I.—Timber and other produce removed from the forests by Government agency— | | | | | | |
| | (*a*) Timber | 129 15 10 | 1,07,764 13 4 | 1,07,894 13 2 | 1,04,507 10 5 | 3,387 2 9 | The outstandings under VC at close of the year amount to Rs. 402-2-1. |
| | (*b*) Firewood and charcoal | 3,276 11 7 | 4,34,957 10 4 | 4,38,234 5 11 | 4,36,075 11 7 | 2,158 10 4 | |
| | (*c*) Grass and other minor produce | ..... | 248 3 10 | 248 3 10 | 248 3 10 | ..... | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | |
| | (*a*) Timber | ..... | 7,333 12 4 | 7,333 12 4 | 7,325 12 4 | 8 0 0 | |
| | (*b*) Firewood ann charcoal | ..... | 36,232 3 7 | 36,232 3 7 | 36,232 3 7 | ..... | |
| | (*c*) Bamboos | ..... | 0 8 0 | 0 8 0 | 0 8 0 | ..... | |
| | (*d*) Grazing and fodder grass | ..... | 51,365 3 11 | 51,365 3 11 | 51,365 3 11 | ..... | |
| | (*e*) Other minor produce | 54 12 0 | 23,755 0 10 | 23,809 12 10 | 23,809 12 10 | ..... | |
| | III.—Confiscated drift and waif wood | ..... | 41 4 0 | 41 4 0 | 41 4 0 | ..... | |
| | Total... | 3,461 7 5 | 6,61,698 12 2 | 6,65,160 3 7 | 6,59,606 6 6 | 5,553 13 1 | |

Karachi,
25th October 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

## FORM No. 63.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE—REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1893-94.

| Division. | Particulars. | Outstandings at commencement of year. | Value of sales and other Revenue during year. | Total. | Amount realised during the year. | Balance due to the Department at end of year. | Remarks. |
|---|---|---|---|---|---|---|---|
| | | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Sukkur ... | I.—Timber and other produce removed from the Forests by Government Agency— | | | | | | |
| | (a) Timber ... ... ... ... ... ... ... ... ... ... | ..... | 16,391 2 0 | 16,391 2 0 | 16,391 2 0 | ..... | |
| | (b) Firewood and charcoal ... ... ... ... ... ... ... ... | 597 14 8 | 1,57,929 12 0 | 1,58,527 10 8 | 1,31,479 1 0 | 27,048 9 8 | The outstandings under VC at the close of the year amount to Rs. 758-6-3. |
| | (c) Grass and other minor produce ... ... ... ... ... ... ... | ..... | 265 7 4 | 265 7 4 | 265 7 4 | ..... | |
| | II.—Timber and other produce removed from the Forests by consumers or purchasers— | | | | | | |
| | (a) Timber ... ... ... ... ... ... ... ... ... ... | 8 0 0 | 3,794 3 9 | 3,802 3 9 | 3,794 3 9 | 8 0 0 | |
| | (b) Firewood and charcoal ... ... ... ... ... ... ... ... | ..... | 27,343 1 6 | 27,343 1 6 | 27,343 1 6 | ..... | |
| | (d) Grazing and fodder grass ... ... ... ... ... ... ... ... | ..... | 15,681 9 9 | 15,681 9 9 | 15,681 9 9 | ..... | |
| | (e) Other minor produce ... ... ... ... ... ... ... ... | 70 11 0 | 1,073 1 3 | 1,143 12 3 | 1,143 12 3 | ..... | |
| | III.—Confiscated drift and waif wood .. ... ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | Total ... | 676 9 8 | 2,22,478 5 7 | 2,23,154 15 3 | 1,96,098 5 7 | 27,056 9 8 | |
| Naushahro. | I.—Timber and other produce removed from the Forests by Government Agency— | | | | | | |
| | (a) Timber ... ... ... ... ... ... ... ... ... ... | ..... | 1,896 8 7 | 1,896 8 7 | 1,896 8 7 | ..... | |
| | (b) Firewood and charcoal ... ... ... ... ... ... ... ... | ..... | 79,966 12 3 | 79,966 12 3 | 78,866 3 5 | 1,100 8 10 | |
| | (e) Grass and other minor produce ... ... ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | II.—Timber and other produce removed from the Forests by consumers or purchasers— | | | | | | |
| | (a) Timber ... ... ... ... ... ... ... ... ... ... | ..... | 1,048 8 8 | 1,048 8 8 | 1,048 8 8 | ..... | |
| | (b) Firewood and charcoal ... ... ... ... ... ... ... ... | ..... | 3,645 13 0 | 3,645 13 0 | 3,645 13 0 | ..... | |
| | (d) Grazing and fodder grass ... ... ... ... ... ... ... ... | ..... | 8,866 15 3 | 8,866 15 3 | 8,866 15 3 | ..... | |
| | (e) Other minor produce ... ... ... ... ... ... ... ... | ..... | 2,285 12 0 | 2,285 12 0 | 2,285 12 0 | ..... | |
| | III.—Confiscated drift and waif wood ... ... ... ... ... ... ... | ..... | ..... | ..... | ..... | ..... | |
| | Total ... | ..... | 97,710 5 9 | 97,710 5 9 | 96,609 12 11 | 1,100 8 10 | |
| Hyderabad | I.—Timber and other produce removed from the forests by Government agency— | | | | | | |
| | (a) Timber ... ... ... ... ... ... ... ... ... ... | 840 3 10 | 39,864 14 2 | 40,705 2 0 | 40,438 6 0 | 266 12 0 | |
| | (b) Firewood and charcoal ... ... ... ... ... ... ... ... | 15,816 1 3 | 1,20,816 13 4 | 1,36,632 14 7 | 1,32,403 0 9 | 4,229 13 10 | |
| | (c) Grass and other minor produce ... ... ... ... ... ... ... | ..... | 5 0 0 | 5 0 0 | 5 0 0 | ..... | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | |
| | (a) Timber ... ... ... ... ... ... ... ... ... ... | ..... | 2,045 13 7 | 2,045 13 7 | 2,045 13 7 | ..... | |
| | (b) Firewood and charcoal ... ... ... ... ... ... ... ... | ..... | 4,070 5 3 | 4,070 5 3 | 4,070 5 3 | ..... | |
| | (c) Bamboos ... ... ... ... ... ... ... ... ... ... | ..... | 0 8 0 | 0 8 0 | 0 8 0 | ..... | |
| | (d) Grazing and fodder grass ... ... ... ... ... ... ... ... | ..... | 12,193 14 3 | 12,193 14 3 | 12,193 14 3 | ..... | |
| | (e) Other minor produce ... ... ... ... ... ... ... ... | ..... | 17,583 9 10 | 17,583 9 10 | 17,583 9 10 | ..... | |
| | III.—Confiscated drift and waif wood ... ... ... ... ... ... ... | ..... | 10 10 0 | 10 10 0 | 10 10 0 | ..... | |
| | Total ... | 16,656 5 1 | 1,96,591 8 5 | 2,13,247 13 6 | 2,08,751 3 8 | 4,496 9 10 | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jerruck ... | I.—Timber and other produce removed from the forests by Government agency— | | | | | | | | | | | |
| | (a) Timber | ..... | | 54,086 | 11 | 7 | 54,086 | 11 | 7 | 48,764 | 0 | 1 | 5,322 | 11 | 6 |
| | (b) Firewood and charcoal | 892 | 5 | 7 | 77,346 | 9 | 5 | 78,238 | 15 | 0 | 78,197 | 3 | 7 | 41 | 11 | 5 |
| | (c) Grass and other minor produce | 17 | 7 | 0 | 3 | 0 | 0 | 20 | 7 | 0 | 20 | 7 | 0 | ..... | | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | | | | | | | | | | |
| | (a) Timber | ..... | | | 1,067 | 2 | 2 | 1,067 | 2 | 2 | 1,067 | 2 | 2 | ..... | | |
| | (b) Firewood and charcoal | ..... | | | 519 | 14 | 6 | 519 | 14 | 6 | 519 | 14 | 6 | ..... | | |
| | (d) Grazing and fodder grass | ..... | | | 11,598 | 13 | 0 | 11,598 | 13 | 0 | 11,598 | 13 | 0 | ..... | | |
| | (e) Other minor produce | ..... | | | 3,266 | 8 | 2 | 3,266 | 8 | 2 | 3,263 | 8 | 2 | ..... | | |
| | III.—Confiscated drift and waif wood | ..... | | | ..... | | | ..... | | | ..... | | | ..... | | |
| | Total... | 909 | 12 | 7 | 1,47,888 | 10 | 10 | 1,48,798 | 7 | 5 | 1,43,434 | 0 | 6 | 5,364 | 6 | 11 |
| Thar and Parkar... | I.—Timber and other produce removed from the forests by Government agency— | | | | | | | | | | | | | | | |
| | (a) Timber | ..... | | | ..... | | | ..... | | | ..... | | | ..... | | |
| | (b) Firewood and charcoal | ..... | | | 5,703 | 1 | 11 | 5,703 | 1 | 11 | 5,564 | 12 | 10 | 138 | 5 | 1 |
| | (e) Grass and other minor produce | ..... | | | ..... | | | ..... | | | ..... | | | ..... | | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | | | | | | | | | | |
| | (a) Timber | ..... | | | 35 | 14 | 0 | 35 | 14 | 0 | 35 | 14 | 0 | ..... | | |
| | (b) Firewood and charcoal | ..... | | | 19 | 12 | 0 | 19 | 12 | 0 | 19 | 12 | 0 | ..... | | |
| | (d) Grazing and fodder grass | ..... | | | 4,611 | 0 | 0 | 4,611 | 0 | 0 | 4,611 | 0 | 0 | ..... | | |
| | (e) Other minor produce | ..... | | | 375 | 11 | 0 | 375 | 11 | 0 | 375 | 11 | 0 | ..... | | |
| | III.—Confiscated drift and waif wood | ..... | | | ..... | | | ..... | | | ..... | | | ..... | | |
| | Total... | ..... | | | 10,745 | 6 | 11 | 10,745 | 6 | 11 | 10,607 | 1 | 10 | 138 | 5 | 1 |
| Total, Sind Circle ... | I.—Timber and other produce removed from the forests by Government agency— | | | | | | | | | | | | | | | |
| | (a) Timber | 840 | 3 | 10 | 1,12,239 | 4 | 4 | 1,13,079 | 8 | 2 | 1,07,490 | 0 | 8 | 5,589 | 7 | 6 |
| | (b) Firewood and charcoal | 17,305 | 5 | 6 | 4,41,763 | 0 | 11 | 4,59,069 | 6 | 5 | 4,26,510 | 5 | 7 | 32,559 | 0 | 10 |
| | (e) Grass and other minor produce | 17 | 7 | 0 | 273 | 7 | 4 | 290 | 14 | 4 | 290 | 14 | 4 | ..... | | |
| | II.—Timber and other produce removed from the forests by consumers or purchasers— | | | | | | | | | | | | | | | |
| | (a) Timber | 8 | 0 | 0 | 7,991 | 10 | 2 | 7,999 | 10 | 2 | 7,991 | 10 | 2 | 8 | 0 | 0 |
| | (b) Firewood and charcoal | ..... | | | 35,598 | 14 | 3 | 35,598 | 14 | 3 | 35,598 | 14 | 3 | ..... | | |
| | (c) Bamboos | ..... | | | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | ..... | | |
| | (d) Grazing and fodder grass | ..... | | | 52,952 | 4 | 3 | 52,952 | 4 | 3 | 52,952 | 4 | 3 | ..... | | |
| | (e) Other minor produce | 70 | 11 | 0 | 24,584 | 10 | 3 | 24,655 | 5 | 3 | 24,655 | 5 | 3 | ..... | | |
| | III.—Confiscated drift and waif wood | ..... | | | 10 | 10 | 0 | 10 | 10 | 0 | 10 | 10 | 0 | ..... | | |
| | Total... | 18,242 | 11 | 4 | 6,75,414 | 5 | 6 | 6,93,657 | 0 | 10 | 6,55,500 | 8 | 6 | 38,156 | 8 | 4 |

Total of outstandings under VC at close of the year amount to Rs. 758-6-3.

The outstandings are chiefly on account of bills remaining unadjusted for Timber and Firewood supplied to the North-Western Railway and other Government Departments.

Karachi,
25th October 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

FORM No. 64. *Sections* 265, 267 & 268 *of the F. D. C.*

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the year 1893-94.

| Division. | Department Debtor. | | | Department Cerditor. | | | Balance due | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | At commencement of year 1893-94. | Recoveries in cash and value of supplies and work done during year 1893-94. | At close of year 1893-94. | At commencement of year 1893-94. | Payments made during year 1893-94. | At close of the year 1893-94. | To Department (outstandings). | By Department (liabilities). | |
| | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| CONTRACTORS. | | | | | | | | | |
| Hyderabad ... ... ... | ..... | 5,715 14 4 | 5,715 14 4 | ..... | 8,421 5 0 | 8,421 5 0 | 2,705 6 8 | ..... | |
| Naushahro ... ... ... | ..... | 2,083 8 0 | 2,083 8 0 | 600 0 0 | 1,483 8 0 | 2,083 8 0 | ..... | ..... | |
| Sukkur ... ... ... | ..... | 8,800 0 0 | 8,800 0 0 | ..... | 8,800 0 0 | 8,800 0 0 | ..... | ..... | |
| Jerruck ... ... ... | ..... | 29,178 6 8 | 29,178 6 8 | 300 0 0 | 29,478 6 8 | 29,778 6 8 | 600 0 0 | ..... | |
| Total ... | ..... | 45,777 13 0 | 45,777 13 0 | 900 0 0 | 48,183 3 8 | 49,083 3 8 | 3,305 6 8 | ..... | |
| DISBURSERS. | | | | | | | | | |
| Hyderabad ... ... ... | ..... | 67,291 0 3 | 67,291 0 3 | 10,029 1 11 | 71,188 3 4 | 81,217 5 3 | 13,926 5 0 | ..... | |
| Naushahro ... ... ... | ..... | 45,376 14 5 | 45,376 14 5 | 11,791 5 4 | 45,297 11 11 | 57,089 1 3 | 11,712 2 10 | ..... | |
| Sukkur ... ... ... | ..... | 69,499 7 11 | 69,499 7 11 | 11,463 4 7 | 81,671 14 6 | 93,135 3 1 | 23,635 11 2 | ..... | |
| Jerruck ... ... ... | ..... | 36,381 3 11 | 36,381 3 11 | 4,898 9 11 | 37,853 0 7 | 42,751 10 6 | 6,370 6 7 | ..... | |
| Total Disbursers... | ..... | 2,18,548 10 6 | 2,18,548 10 6 | 38,182 5 9 | 2,36,010 14 4 | 2,74,193 4 1 | 55,644 9 7 | ..... | |
| Grand Total... | ..... | 2,64,326 7 6 | 2,64,326 7 6 | 39,082 5 9 | 2,84,194 2 0 | 3,23,276 7 9 | 58,950 0 3 | ..... | |

No. F. 12,302

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office.
Bombay, August 1894.

O. T. BARROW,
Accountant General.

## FORM No. 64.

*Section* 238 *of the F. D. C.*

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the Forest Year 1893-94, July 1893to June 1894.

| Divisions. | Department Debtor. | | | Department Creditor. | | | Balance due | | Remarks. |
|---|---|---|---|---|---|---|---|---|---|
| | At commencement of Forest year, June 1893 to July 1894. | Recoveries in cash and value of supplies and work done during Forest year 1893-94. | At close of year 1893-94. | At commencement of Forest year 1893-94. | Payments made during Forest year 1893-94. | At close of Forest year 1893-94. | To Department (outstandings.) | By Department (liabilities.) | |
| *Contractors.* | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | Rs. a. p. | |
| Hyderabad ... ... | ... | 5,772 7 8 | 5,772 7 8 | ... | 12,331 5 0 | 12,331 5 0 | 6,558 13 4 | ... | |
| Naushahro ... ... | ... | 1,483 8 0 | 1,483 8 0 | 600 0 0 | 1,483 8 0 | 2,083 8 0 | 600 0 0 | ... | |
| Sukkur ... ... ... | ... | 12,800 0 0 | 12,800 0 0 | 900 0 0 | 12,800 0 0 | 13,700 0 0 | 900 0 0 | ... | |
| Jerruck ... ... ... | ... | 29,178 6 8 | 29,178 6 8 | 16,785 1 0 | 24,993 5 8 | 41,778 6 8 | 12,600 0 0 | ... | |
| Total Contractors... | ... | 49,234 6 4 | 49,234 6 4 | 18,285 1 0 | 51,608 2 8 | 69,893 3 8 | 20,658 13 4 | ... | |
| *Disbursers.* | | | | | | | | | |
| Hyderabad ... ... | ... | 64,309 0 0 | 64,309 0 0 | 17,205 1 7 | 66,289 9 3 | 83,494 10 10 | 19,185 10 10 | ... | |
| Naushahro ... ... | ... | 49,283 12 6 | 49,283 12 6 | 20,637 5 8 | 49,399 14 2 | 70,037 3 10 | 20,753 7 4 | ... | |
| Sukkur ... ... ... | ... | 73,359 12 3 | 73,359 12 3 | 44,680 14 0 | 58,426 14 6 | 1,03,107 12 6 | 29,748 0 3 | ... | |
| Jerruck ... ... ... | ... | 34,770 14 9 | 34,770 14 9 | 8,310 1 5 | 38,253 0 7 | 46,563 2 0 | 11,792 3 3 | ... | |
| Total Disbursers... | ... | 2,21,723 7 6 | 2,21,723 7 6 | 90,833 6 8 | 2,12,369 6 6 | 3,03,202 13 2 | 81,479 5 8 | ... | |
| Grand Total... | ... | 2,70,957 13 10 | 2,70,957 13 10 | 1,09,118 7 8 | 2,63,977 9 2 | 3,73,096 0 10 | 1,02,138 3 0 | ... | |

No. F./15198.

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 8th September 1894.

O. T. BARROW,
Accountant General.

## FORM No. 65.

### FOREST DEPARTMENT, SIND CIRCLE.

*Financial results of the Forest year* 1893-94.

| Divisions. | Timber and other preduce removed from the Forests by Government agency. | | Other Revenue. | | Formation, protection and improvement of Forests. | Total. | | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | Receipts | Charges. | Receipts. | Charges. | Charges. | Receipts. | Charges. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Sukkur ... ... ... | 1,55,488 | 91,235 | 61,052 | 9,986 | 12,482 | 2,16,540 | 1,13,703 | |
| Naushahro ... ... ... | 77,141 | 60,724 | 27,324 | 8,586 | 9,007 | 1,04,465 | 78,317 | |
| Hyderabad ... ... ... | 1,65,466 | 1,01,901 | 37,237 | 8,872 | 17,031 | 2,02,703 | 1,27,804 | |
| Jerruck ... ... ... | 1,37,991 | 1,08,052 | 17,981 | 8,688 | 11,368 | 1,55,972 | 1,28,108 | |
| Thar and Parkar ... ... ... | 4,746 | 4,042 | 4,370 | 234 | 341 | 9,116 | 4,617 | |
| Total... ... | 5,40,832 | 3,65,954 | 1,47,964 | 36,366 | 50,229 | 6,88,796 | 4,52,549 | |

Karachi,
23rd October 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circl

# FORM No. 65.

## FOREST DEPARTMENT, SIND CIRCLE.

*Financial results of the year* 1893-94.

| DIVISION. | Timber and other produce removed from the Forests by Government agency. | | Other Revenue. | | Formation, protection and improvement of Forests. | Total. | | Remarks. |
|---|---|---|---|---|---|---|---|---|
| | Receipts. | Charges. | Receipts. | Charges. | Charges. | Receipts. | Charges. | |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | |
| Sukkur ... ... ... | 1,48,136 | 1,09,719 | 57,399 | 10,120 | 12,415 | 2,05,535 | 1,32,254 | |
| Naushahro ... ... ... | 80,763 | 61,545 | 25,298 | 8,619 | 9,155 | 1,06,061 | 79,319 | |
| Hyderabad ... ... ... | 1,72,846 | 98,813 | 39,355 | 9,159 | 17,439 | 2,12,201 | 2,25,411 | |
| Jerruck ... ... ... | 1,26,982 | 97,517 | 17,865 | 8,746 | 10,452 | 1,44,847 | 1,16,715 | |
| Thar and Parkar ... ... ... | 5,565 | 4,092 | 5,042 | 287 | 391 | 10,607 | 4,770 | |
| Total ... ... | 5,34,292 | 3,71,686 | 1,44,959 | 36,931 | 49,852 | 6,79,251 | 4,58,469 | |

Karachi,
23rd October 1894.

G. M. RYAN,
Acting Deputy Conservator of Forests, Sind Circle.

*Forest Administration Reports of the Bombay Presidency, including Sind, for 1893-94.*

No. 4192 OF 1895.

REVENUE DEPARTMENT.

Bombay Castle, 4th June 1895.

Letter from the Deputy Conservator of Forests, Northern Circle, No. 2241, dated 4th December 1894—Submitting the Forest Administration Report of the Northern Circle for the Forest year 1893-94, together with its prescribed subsidiary statements.

Memorandum from the Commissioner, N. D., No. 4549, dated 24th December 1894.—Forwarding his remarks on the Forest Administration Report of the Northern Circle for 1893-94.

Letter from the Conservator of Forests, C. C., No. 5138, dated 29th December 1894—Submitting the Forest Administration Report of the Central Circle for the Forest year 1893-94, together with its prescribed subsidiary statements.

Memorandum from the Commissioner, C. D., No. R.—86, dated 4th January 1895—Submitting, with his remarks, the Forest Administration Report of the Central Circle for 1893-94.

Letter from the Conservator of Forests, S. C., No. 5014, dated 1st December 1894.—Submitting the Forest Administration Report of the Southern Circle for the year 1893-94, together with its subsidiary statements.

Memorandum from the Commissioner, S. D., No. 227, dated 26th January 1895.—Forwarding, with his remarks, the Forest Administration Report of the Southern Circle for 1893-94.

Letter from the Deputy Conservator of Forests, Sind Circle, No. 2046, dated 25th October 1894.—Submitting the Annual Administration Report of the Sind Forest Circle for the year 1893-94, together with its subsidiary statements.

Memorandum from the Commissioner in Sind, No. 4961, dated 30th November 1894.—Reviewing the Forest Administration Report of the Sind Circle for the year ending 30th June 1894.

Letter from the Conservator of Forests, S. C., No. 7267, dated 21st March 1895.

Change in period reported on.

RESOLUTION.—The Government of India having directed that the 12 months ending 30th June should be taken as the official year for the purpose of forest administration, the reports reviewed in Government Resolution No. 5385, dated 23rd June 1894, were made to relate to a period of 15 months in order that future reports might be for Forest years as now reckoned. The reports under review are the first which relate to a period of 12 months constituting the new Forest year, and as the comparisons made in them are for the most part with the facts and figures given in the preceding reports, it is necessary to bear in mind that a period of 12 months is contrasted with a period of 15 months. Moreover, these 15 months comprised two hot seasons, in which certain forest operations are more busily carried on than in other seasons.

Forest Area.

2. The following statement shows the changes which have taken place in the forest area in the year under report :—

| Circle. | Area on 1st July 1893. | | Added. | | Excluded. | | Area on 30th June 1894. | | Total Forest Area. |
|---|---|---|---|---|---|---|---|---|---|
| | Reserved. | Protected. | Reserved. | Protected. | Reserved. | Protected. | Reserved. | Protected. | |
| | Sq. Miles. | Sq. Miles. | Sq. Miles. | Sq. Miles. | Sq. Miles. | Sq. Miles. | Sq. Miles. | Sq. Miles. | Sq. Miles. |
| Northern Circle ... | *953 184/640 | 601 80/640 | 194 254/640 | ..... | 4 337/640 | 155 121/640 | 1,143 101/640 | 445 599/640 | 1,589 60/640 |
| Central do. ... | 5,723 456/640 | 189 563/640 | 562 475/640 | 77/640 | 141 93/640 | 177 486/640 | 6,145 198/640 | 12 154/640 | 6,157 352/640 |
| Southern do. ... | 1,977 388/640 | 3,405 176/640 | 494 72/640 | ..... | 523/640 | 504 116/640 | 2,470 577/640 | 2,901 60/640 | 5,371 637/640 |
| Sind do. ... | 975 40/640 | 5 32/640 | 1 434/640 | ..... | ..... | 117/640 | 976 483/640 | 4 555/640 | 981 398/640 |
| Total ... | 9,629 437/640 | 4,201 211/640 | 1,252 595/640 | 77/640 | 146 313/640 | 837 200/640 | 10,736 79/640 | 3,364 88/640 | 14,100 167/640 |

* Excluding the area of the leased forests in the Dángs, which is given at 678½ square miles.

The changes in the Northern Circle occurred in Thána and Panch Maháls and consisted mainly in the conversion of Protected into Reserved forest, experience shewing that the stricter conservancy of the latter is not inconsistent with the permission of all reasonable privileges, and the inclusion of the catchment area of the Tánsa lake. A similar conversion took place in the Central Circle, but in addition a considerable area formerly outside the forest boundary was notified under Section 19 as Reserved forest. This augmentation took place mainly in West Khándesh, where also occurred most of the exclusions shown in the statement, the changes being necessary for the purpose of making the forest area compact. The selection of land for forest in the Central Circle is now practically complete and almost all that can be done hereafter to increase the area under conservancy is the acquisition of some occupied lands which lie within the forest line. The proportion of the forest area to the total area of districts varies from 21·87 per cent. in Khándesh to 6·12 per cent. in Sholápur. There would doubtless be great advantages of the nature pointed out by the Honourable Mr. Shuttleworth in afforesting larger areas in some places, but larger areas are not available, and it will tax all the energies of the Department to afforest the land now actually in its charge. In the Southern Circle also the increase of the Reserved was made at the cost of the Protected area, the conversion taking place for the most part in Kánara, but also to some extent in Belgaum and Kolába. In Sind less than 2 square miles were actually added to the reserves, but considerable areas were selected by the special officer appointed for the purpose and notified under Section 4 of the Act, and moreover considerable areas had been similarly notified before, but the inquiry regarding rights in them had not been completed when the year closed. The demand for fuel for the North-Western Railway and for other purposes is larger than can be supplied by the existing Sind forests, but every effort is being made to add suitable areas as they become available. These areas are for the most part such as benefit by the spill of the Indus, but the action of the river also causes very considerable damage in some cases. It is estimated that 6,681 acres of forest land were in the year under review lost by erosion, but on the other hand that 11,803 acres were gained by alluvion ; the former however contained trees of value, while the latter of course have still to be afforested. But the estimates are said to be inaccurate. The temporary employment of surveyors to measure these areas as well as to perform duties connected with working plans has been sanctioned.

Settlement.

3. The results of the settlements appear for the most part in the preceding paragraph, the areas in which inquiry is completed being as soon as possible formally added to the reserves by notification under Section 19 of the Act. In the Northern Circle the settlement has been completed except in Thána, but the area remaining to be dealt with in that district exceeds one-third of the total forest area of the Circle. The special Forest Settlement Officer employed should now be able, however, to complete the work without much more delay. There remains nothing of importance to be done in the Central Circle. In the Southern Circle fair progress was made. The field-work in Dhárwár was completed and in the North Kánara Division the settlement was made in 722 square miles; in the Southern Kánara Division only 98 square miles were settled, but the inquiry in the areas which enclose gardens and adjunct forest is of an unusually complicated nature. The area remaining to be dealt with in Kánara is 700 square miles. Details of the settlement in Sind are not given, but it is presumed it was completed before the close of the year in the 1,074 acres added to the reserves. The further classification of the forests directed in the Resolution of this Government, No. 6702, dated 15th September 1893, and in the Resolution of the Government of India, No. 22-F., dated 19th October 1894. may involve some alteration of the area in charge of the Forest Department, but the alteration will probably not be great.

Demarcation.

4. The important work of demarcating the forest received less attention than is desirable. The extent to which boundary lines were cleared and the amount expended in the erection of cairns and other stone marks are shown below :—

| Circle. | Length in Miles of Boundary Lines cleared. | Cost of erecting Cairns. |
|---|---|---|
| | Miles. | Rs. |
| Northern Circle ... ... ... | 139½ | 3,738* |
| Central do. ... ... ... | 1,030 | 8,411 |
| Southern do. ... ... ... | 75 | 1,894 |
| Sind do. ... ... ... | Not given. | Not given. |

* Inclusive of Rs. 1,333 on account of the Dángs.

Most was done in the Central Circle, but there also much less than in the period dealt with in the preceding report, which however comprised two hot seasons, when this work can be most conveniently done. The boundaries marked out in the Southern Circle are those between Reserved and Protected forest. Doubtless the clearing of the dense undergrowth in Kánara is more laborious than the work on barer lands; nevertheless, in the opinion of the Governor in Council, the progress made in the year of report was not satisfactory. It is not shown in the report of the Deputy Conservator precisely what was done in the matter in Sind, but it appears from the Commissioner's remarks that there were made rides to the length of 72 miles, which besides serving as boundary lines are useful for the transport of forest produce and as fire-traces. The Honourable Mr. James is not however satisfied with the amount of the work of this class done in the year under review.

Survey.

5. The progress of the forest survey is but slow. The areas dealt with appear to be—

| | Square Miles. |
|---|---|
| Northern Circle ... ... ... | ... 51·21 |
| Central do. ... ... ... | ... 186·26 |
| Southern do. ... ... ... | ... 249·98 |

At this rate many years will be needed for the completion of the work. The maps of the Poona, Ahmednagar and Sholápur Bábul Reserves are, for reasons which have been deemed satisfactory, being made on a 16″ scale. Elsewhere an 8″ scale is deemed sufficient and the Kánara forests are being mapped on a 4″ scale. The Conservator of Forests, S. C., is of opinion that the survey of the Kolába forests should be completed on a 4″ scale and that for the forests which remain to be surveyed a scale of 2″ or even 1″ would suffice. The Governor in Council, however, agrees with the Commissioner, S. D., that at this stage a change is undesirable and considers that the survey should in each district be completed on the scale on which it has been begun. There are wide differences, which are not accounted for, in the rates of cost. According to the ffgures given, the expenditure in the Northern Circle on the 8″ scale averaged Rs. 229 per square mile, while in the Central Circle it was Rs. 134-13-7 and in the Southern Circle Rs. 191. The Conservator of Forests, S. C., points out that the cost of the 8″ survey was less in 1891-92 than that of the 4″ survey in 1893-94; and that in 1892-93 it was double that of 1891-92 and in 1893-94 57 per cent. more. The Superintendent of the Bombay Forest Surveys should be requested to favour the Governor in Council with his remarks on these figures.

Working Plans.

6. The exploitation of the Thána forests is now being carried out on systematic plans, the orders contained in Government Resolution No. 1899, dated 13th March 1891, that the units of working area should be small and fellings widely distributed, being observed. It appears, however, that at the close of the year comparatively few coupes had been marked out beyond those to be worked in the current year. It is hoped that this defect is now being remedied. In the Central Circle fair progress has been made, but the plans there are less elaborate and the Governor in Council agrees with the Conservator of that Circle that in the greater part of the Deccan elaborate plans are not needed. Data were collected for working 135,406 acres of the Kolába forests, whereas in Kánara they were collected for 21,106 acres only. The work is no doubt more difficult

in the latter district, but less seems to have been done there than might have been expected from a party working throughout the year, although more than in the preceding year. In Sind the working plans are often affected by the action of the river. There were 488,329 acres in that Circle divided into compartments in the course of the year. Selected coupes are cleared and are then closed for reproduction. It is hoped that the need of re-afforesting cleared compartments is carefully borne in mind in all districts.

Buildings and roads.

7. In no part of the Presidency was there any large expenditure on buildings or roads in the course of the year. Hereafter the improvement of communications between important forests and existing lines of traffic will probably be very desirable, but at present, except in a few places in Sind, the matter is not urgent.

General Protection.

8. The following statement shows the number and result of prosecutions for forest offences, the action taken under Section 67 of the Forest Act and the number of animals impounded in the year under review and the period of 15 months dealt with in the preceding reports:—

| Circle. | 1892-93. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prosecutions. | Acquittals. | Percentage of failures. | Cases compounded. | Amount realised. | Number of animals impounded for trespass in closed area. | Number of animals impounded for grazing in open area without passes. | Total of Columns 7 and 8. |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | Rs. a. p. | | | |
| Northern Circle ... ... | 234 | 62 | 26·5 | 419 | 1,025 3 1 | 4,011 | 2,266 | 6,277 |
| Central Circle ... ... | 1,402 | 393 | 28·03 | 9,647 | 27,019 0 0 | 240,128 | 142,331 | 382,459 |
| Southern Circle ... ... | 575 | 137 | 23·8 | 909 | 2,579 0 0 | † 7,503 | † 9,246 | † 16,749 |
| Sind Circle ... ... ... | 51 | 26 | 50·9 | * 366 | 1,032 0 0 | 15,988 | 9,869 | 25,857 |
| Total ... | 2,262 | 618 | 27·32 | 11,341 | 31,655 3 1 | 267,630 | 163,712 | 431,342 |

| Circle. | 1893-94. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Prosecutions. | Acquittals. | Percentage of failures. | Cases compounded. | Amount realised. | Number of animals impounded for trespass in closed area. | Number of animals impounded for grazing in open area without passes. | Total of Columns 15 and 16. |
| 1 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| | | | | | Rs. a. p. | | | |
| Northern Circle ... ... | 230 | 89 | 38·7 | 244 | 758 3 3 | 7,215 | 2,122 | 9,337 |
| Central Circle ... ... | 1,437 | 295 | 20·5 | 926 | 1,790 0 0 | 188,584 | 106,185 | 294,769 |
| Southern Circle ... ... | 499 | 143 | 28·65 | 361 | 1,176 0 0 | 5,386 | 8,206 | 13,592 |
| Sind Circle ... ... ... | 39 | 14 | 35·9 | ‡ 171 | 528 0 0 | 14,129 | 7,542 | 21,671 |
| Total ... | 2,205 | 541 | 24·53 | 1,702 | 4,252 3 3 | 215,314 | 124,055 | 339,369 |

* Exclusive of 2,061 cases of illicit grazing.

† These figures include the figures for the Dhárwár and Bijápur Districts, which were not embodied in the table given in paragraph 122 of the report for 1892-93.

‡ Exclusive of 1,167 cases of illicit grazing.

A deduction of one-fifth being made from the figures shown under 1892-93, it is observed that there has been some increase on the whole in the number of prosecutions, but a very marked decrease in the number of cases compounded under Section 67 of the Forest Act. The latter fact is no doubt mainly the result of the orders contained in Government Resolutions Nos. 7907, dated 6th October 1892, and 8626, dated 3rd November 1892, and paragraph 6 of the latter Resolution is said to have been misunderstood in some districts of the Central Circle. It is not clear, however, how such misunderstanding could have a material effect on the number of cases dealt with. It is only in exceptional cases that action can appropriately be taken under the provision referred to for cattle trespass, for the amount of damage cannot ordinarily be ascertained with any accuracy, and in the absence of such information the equitable application of the provision must be difficult. Orders regarding the working of Section 67 of the Forest Act will shortly be issued. It is satisfactory to observe that the number of unsuccessful prosecutions was on the whole less than in the previous year. In the Northern Circle there was a considerable increase in the proportion of acquittals, which has not been satisfactorily explained. When it is borne in mind that the forest area of the Northern Circle is, roughly speaking, one-sixth and that of the Southern Circle, roughly speaking, one-third of that of the Central Circle, it appears that in the matter of prosecutions and action under Section 67 of the Forest Act there is some approach to uniformity. But as regards the impounding of cattle there continues to be in the Central Circle a very marked excess of activity over that shown elsewhere. In proportion to the area there were impounded in that circle about 5 times as many animals as in the Northern Circle and about 7 times as many as in the Southern Circle. This result is no doubt largely due to the circumstances of the Circles, cultivated and forest area being much more closely intermingled in the Central Circle than elsewhere, while population is also relatively denser and agricultural stock larger, but it is doubtful if this is an adequate explanation of so wide a difference. There is, however, a substantial decrease in the number of impoundings in the Central Circle, particularly in those for trespass in closed areas. Government are glad to notice this decrease and trust that the necessity of dealing as leniently as possible with the people where forests are much mixed up with cultivated lands may be kept steadily in view. The policy of Government in the matter of dealing with all forest offences has been very fully declared, and the Governor in Council has no reason to doubt that it is being carried out as strictly as is practicable. It is satisfactory to notice that in a considerable number of cases people were let off with a warning, although some complaints are made that leniency was misplaced and resulted in some increase of damage to the forests. The Commissioner, Central Division, and several Collectors state that there is little or no use in such closing as is now practised, and it is observed with regret that except in Sind comparatively little was done in the year under review in the matter of fencing. The Governor in Council regards it as of great importance that such closed areas as adjoin grazing grounds should be fenced as soon as funds are available. If there is nothing to prevent trespass except the occasional visit of a guard who may have several villages to look after, trespass is sure to be general. The proportion of offenders who are detected must be minute, and if the chance of detection is small, the punishment in any form of the few who are detected can have little or no deterrent effect. Where there is a visible obstruction to trespass either of cattle or of people for the purpose of taking forest produce, it is not likely to be removed, and in such case offenders can have no sympathy from law-abiding people on the ground of ignorance of what is prohibited.

Grass and grazing.

9. The grazing rules published with Government Resolution No. 3595, dated 23rd May 1890, were enforced in most parts of the Presidency in the year under review. There seems however to be some doubt whether they are strictly observed. The Commissioner, Central Division, estimates that only 5 per cent. of the existing cattle had passes to graze free, and fees were paid for only 16 per cent. In Sind there are special rules. The Commissioner states that the fees in that province are light, but they are considerably less so than in the Presidency proper. Reports on the working of the grazing rules have been called for, and

few remarks on the subject are therefore needed here. The areas respectively closed and open to grazing in the year under review are given in the reports as follows :—

| | Closed. | Open.* |
|---|---|---|
| | Sq. Miles. | Sq. Miles. |
| Northern Circle ... ... | 269 | *2,499 |
| Central „ ... ... | 1,912 | 4,245 |
| Southern „ ... ... | 850 | 4,563 |
| Sind „ ... ... | 46 | 936 |

* Including the area of the leased forests in the Dangs which is 678 square miles.

There must however be some mistake in the figures, for the aggregate is more than the whole forest area. It is clear however that on the whole there is no undue curtailment of pasture. The receipts from grazing fees and sale of fodder grass in the year under review and the previous year respectively are contrasted below :—

| Circle. | Amount. | |
|---|---|---|
| | 1892-93. | 1893-94. |
| | Rs. | Rs. |
| Northern Circle ... | 26,152 | 28,656 |
| Central „ ... | *3,92,140 | 3,86,211 |
| Southern „ ... | *1,22,100 | 1,01,762 |
| Sind „ ... | *60,687 | 52,952 |
| Total ... | 6,01,079 | 5,69,581 |

*These figures are inclusive of the outstandings of the collections of the year 1891-92.

The grass of valuable kurans only is sold by auction. The number of agricultural cattle allowed to graze free is given below :—

| | |
|---|---|
| Northern Circle ... ... | 303,778 |
| Central „ ... ... | 363,977 |
| Southern „ ... ... | 73,673 |
| Sind Circle „ ... ... | 14,849 |

Protection against fire.

10. The correctness of information given regarding the attempts to protect the forests from fire and the results is doubted. It is reported that about 34 per cent. of the forest in the Northern Circle was burned as compared with 30 per cent. in the previous year; whereas in the Central Circle it fell from 8 to 3 per cent. In the Southern Circle 16,356 acres of forest land were overrun by fires as compared with 12,300 in the previous year, and in Sind 7,809 acres as compared with 2,239 acres. In the Central Circle no less than 4,042,266 acres are protected and fire lines are now said to be general, but the Conservator doubts whether the decrease in the area burned is the result of the fire lines. The efforts to protect against fire should not be relaxed ; in consequence of the habits of the people, who for many purposes of their own use fire with the utmost carelessness, though often without evil intention, and the inflammable nature of forest produce in the hot season, the difficulty of successful protection is enormous, but the destruction which would be prevented by such protection is also great. His Excellency the Governor in Council observes with satisfaction that in several cases villagers rendered willing assistance in extinguishing fires. The suggestion of the Commissioner in Sind, that when a forest is burned to improve the grass it should be closed against grazing, is one which in many cases might be adopted with advantage, provided care is taken that the many are not punished for the fault of a few. In only a small proportion of cases were the suspected incendiaries detected. It is to be trusted that the rules recently published by Government will prove effectual in diminishing the number of accidental fires.

Improvement.

11. In all Circles the improvement of the forest from natural causes is reported to have been satisfactory where there was no damage from fire. The Conservator of Forests, Central Circle, complains that more injury is caused by animals admitted to graze, particularly goats, than by fire, and that damage is also done by the exercise of other privileges, but as has been directed, the forests must be managed for the welfare of the community generally and privileges must be allowed. As regards artificial improvement much has been effected by guards throwing seed broadcast in all circles; creepers and some prickly-pear have been cleared away; in exploited coupes there has been ploughing and transplanting, and in Kánara there have been improvement cuttings to favour the growth of superior species. Improvement by these means has not yet received sufficient attention, but comparatively little is practicable without an increase in the lower grades of establishment, which is under consideration. There can be little doubt that well planned expenditure for this purpose would speedily produce very profitable results. There were no experiments to speak of made in the year under review to grow exotic plants, and His Excellency in Council concurs with the Honourable Mr. Shuttleworth in thinking that most benefit is likely to arise from attention given to indigenous trees.

Exploitation.

12. The method of working the forests varies according to the circumstances of the several forests. In Thána the wood to be cut in the coupes according to the working plan is generally sold as it stands, but if a fair price is not offered, it is cut departmentally. On this account there was a decline in the outturn of produce removed departmentally. In Surat there were some selection fellings in the year under review, but elsewhere in the Northern Circle there appear to have been no very systematic operations. In the Central Circle there were selection fellings in Peint and improvement fellings in the teak forests in the Sahyadri range, while bábul fellings were general. In Poona and Sholápur timber was mostly sold standing, and on the whole in the Central Circle also the departmental operations were curtailed. In Kánara there was an increase in the quantity of timber removed by Government agency, while in Kolába it was chiefly removed by purchasers. The fellings in Sind are mainly departmental, and in the removal of produce in the year under review the Railway Administration rendered assistance by placing a tug at the disposal of the Forest Department. There was a considerable increase in the timber and a small increase in the firewood removed departmentally in that Circle. In the Central Circle rosha oil yielded a considerable sum, as did hirdas in that and the Southern Circle. The receipts from grass and grazing have already been given. Other minor produce was not important. Free grants of timber were made in the several Circles of the value shown below :—

| | Rs. |
|---|---|
| Northern Circle ... ... | 2,957 |
| Central Circle ... ... | 2,634 |
| Southern Circle ... ... | 76,555 cubic feet (value not given). |
| Sind Circle ... ... | 704 |

Financial results.

13. The financial results of the year under review and the period of 15 months dealt with in the preceding reports were as follows :—

| Circle. | Receipts. | | Expenditure. | | Net Revenue. | | Increase or decrease in net Revenue in |
|---|---|---|---|---|---|---|---|
| | 1892-93 (15 months). | Forest year 1893-94. | 1892-93 (15 months). | Forest year 1893-94. | 1892-93 (15 months). | Forest year 1893-94. | Forest year 1893-94. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Northern Circle ... | 6,82,884 | 7,60,954 | 3,35,125 | 2,64,947 | 3,47,759 | 4,96,007 | +1,48,248 |
| Central Circle ... | 8,23,495 | 8,14,169 | 5,87,992 | 5,13,130 | 2,35,503 | 3,01,039 | +65,536 |
| Southern Circle ... | 13,84,371 | 15,31,317 | 8,19,142 | 8,60,481 | 5,65,229 | 6,70,836 | +1,05,607 |
| Sind Circle... ... | 7,91,031 | 6,79,251 | 5,44,331 | 4,58,469 | 2,46,700 | 2,20,782 | —25,918 |
| Total ... | 36,81,781 | 37,85,691 | 22,86,590 | 20,97,027 | 13,95,191 | 16,88,664 | +2,93,473 |

It will be more satisfactory, however, to compare the results of the Financial year 1892-93 and the Forest year 1893-94, which are given below :—

| Circle. | Receipts. | | Expenditure. | | Net Revenue. | | Increase or decrease in net Revenue in |
|---|---|---|---|---|---|---|---|
| | Financial year, 1892-93. | Forest year, 1893-94. | Financial year, 1892-93. | Forest year, 1893-94. | Financial year, 1892-93. | Forest year, 1893-94. | 1893-94. |
| | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. | Rs. |
| Northern Circle ... | 6,35,449 | 7,60,954 | 2,69,286 | 2,64,947 | 3,66,162 | 4,96,007 | +1,29,845 |
| Central Circle ... | 7,51,787 | 8,14,169 | 4,82,479 | 5,13,130 | 2,69,308 | 3,01,039 | +31,731 |
| Southern Circle ... | 12,01,085 | 15,31,317 | 6,74,597 | 8,60,481 | 5,26,488 | 6,70,836 | +1,44,348 |
| Sind Circle .. ... | 6,81,223 | 6,79,251 | 4,65,253 | 4,58,469 | 2,15,970 | 2,20,782 | +4,812 |
| Total ... | 32,69,544 | 37,85,691 | 18,91,615 | 20,97,027 | 13,77,928 | 16,88,664 | +3,10,736 |

There was a substantial increase in the net revenue of every circle, which amounted on the whole to Rs. 3,10,736. The increase was mainly in the Northern and Southern Circles, and results from the sale of wood in the coupes in Thána and the extended exploitation of the Kánara forests. The operations of the year under review in the Northern and Central Circles appear to have been more successful financially than in any previous year, and the increase of the net revenue in the former as compared with that of 1892-93 is nearly 43 per cent. In the Southern Circle also the surplus is larger than it has been since 1889-90, and the improvement in 1893-94 as compared with 1892-93 was over 27 per cent. In Sind the increase was not so marked, but it was substantial. The return to expenditure in that circle is proportionately much smaller than it is in other circles, but the main cause is that the removal of the produce has for the most part to be carried out departmentally. The Commissioner in Sind and the Deputy Conservator of that Circle say that the net revenue, by which they appear to mean the net revenue in proportion to area, is larger than in other circles, but it is to be remembered that most of the forest land in Sind is of a superior quality, benefiting from the spill of the Indus, and, if not required for forest, could probably be cultivated with profit. The only unsatisfactory feature in the financial part of the reports is the large amount, which rose from Rs. 2,43,963 in 1892-93 to Rs. 3,06,030 in 1893-94, remaining due from contractors in the Southern Circle. It is explained that the wood purchased is removed gradually from the depôts and paid for as it is taken, but it is admitted that there will probably be some bad debts. The system of dealing with large contractors is necessary in Kánara, but it requires caution. His Excellency in Council also agrees with the Commissioner in Sind that the practice of making advances to small contractors in that circle needs to be carefully watched.

Establishment.

14. The conduct of the establishment does not seem to have been altogether satisfactory. There were 15 guards dismissed in the Northern Circle, 55 in the Central Circle, 37 in the Southern Circle and 2 in the Sind Circle, not to mention other punishments, including some inflicted by Magistrates. The Conservators, Central and Southern Circles, urge that the staff is inadequate for efficient management. The question of a revision of establishment will be considered in connection with that of the system of conservancy in various classes of areas, regarding which reports are awaited.

Controlling Staff.

15. The thanks of Government are due to the Conservators and to the Deputy Conservator who was in charge of the Northern Circle for their careful and judicious supervision. There was no abatement of zeal on the part of the Honourable Mr. Shuttleworth, whose devotion to duty has been so frequently recognized. As regards the Sind Circle Government have to record their regret for the loss of the valuable services of Mr. Hexton, who was in charge throughout the year under review but died before the report was written. The Divisional Forest Officers, with the exception of one who was reduced and subsequently resigned, are reported to have worked

satisfactorily, and note will be taken of those who are mentioned as specially deserving of praise. The Governor in Council is particularly glad to observe that the officers of the Forest Department seem to have generally worked in cordial co-operation with those of other departments, and that in their relations with the people whose need of forest produce has to be met there seems to have been no avoidable friction.

16. The errors and discrepancies which have been discovered in scrutinizing the reports under review have been noted in the accompanying Appendix.

J. MONTEATH,
Acting Secretary to Government.

To

The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
The Commissioner in Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Conservators of Forests, Central and Southern Circles,
The Deputy Conservators of Forests, Northern and Sind Circles,
The Survey Commissioner and Director, Land Records and Agriculture,
The Superintendent, Bombay Forest Surveys,
The Public Works Department of the Secretariat,
The Accountant General,
} With copies of the Reports.

The Government of India,
The Secretary of State,
} by letter.

The Editors' Tables, Bombay and Poona.

# APPENDIX.

## REFERRED TO IN PARAGRAPH 16 OF GOVERNMENT RESOLUTION NO. 4192, DATED 4TH JUNE 1895.

### *Northern Circle.*

The area of Reserved forests on 1st July 1893 is shown in paragraph 8 of the report as 953 square miles and 184 acres, whereas in paragraph 19 of the report for 1892-93 the area as it stood on 30th June 1893 was shown as 954 square miles and 477 acres, and in Form No. 46 appended thereto as 954 square miles and 480 acres.

In paragraph 23 of the report the cost of the office establishment for the Forest Settlement work in the Surat Division is stated to be Rs. 1,285-1-6, but Form No. 47 does not specify any amount on this account for that Division.

The area of forest lands settled as given in paragraph 26 of the report is 1,626 square miles and 389 acres, whereas in Form No. 47 it is 1,270 square miles and 615 acres.

In paragraph 27 of the report the cost of the clearance of boundary lines and the erection of forest boundary marks in the Surat Division is given as Rs. 2,822, whereas in Form No. 48 it is shown as Rs. 1,906.

The total forest area in the N. Circle, including the area of the leased forests in the Dángs, is 2,267 $\frac{380}{640}$ square miles as given in the statement embodied in paragraph 8 of the report, whereas that given in Form No. 54 is 2,768 square miles.

In paragraph 80 of the report it is stated that a total of 39,555 acres was treated under the head of cultural operations, but the area given as such in Form No. 56 is 38,813 acres.

The figures given under the head "Bamboos removed in 1893-94" given in paragraph 105 of the report, do not tally with those specified in Form No. 57, as shown below:—

| | | Cart-loads. | Head-loads. | Number. |
|---|---|---|---|---|
| East Thána ... | According to paragraph 105 | 40 | 7 | 228,890 |
| | Do. Form No. 57 | 494 | 878 | 13,745 |
| Surat ... ... | According to paragraph 105 | ... | ... | 901,558 |
| | Do. Form No. 57 | ... | ... | 855,710 |
| Panch Maháls... | According to paragraph 105 | ... | ... | 117,051 |
| | Do. Form No. 57 | ... | ... | 117,205 |

In the foot-note to paragraph 114 of the report it is stated that the figures for 1892-93 given in the statement are for the Forest year from 1st July to 30th June, but those figures appear from Form No. 61 appended to the report for the last year to be for the period of 15 months from April 1892 to end of June 1893.

### *Central Circle.*

In paragraph 25 of the report the areas of forests settled in the Poona and Sátára Divisions are given as 26 square miles and 565 acres, and 22 square miles and 340 acres, whereas the figures given in Form No. 47 are 2 square miles and $\frac{1}{8}$ square mile respectively.

In paragraph 35 of the report the expenditure on account of forest settlement establishments charged to Forest Accounts in the two Divisions of the Khándesh District is stated to be Rs. 4,561. But the cost on account of forest settlements as given in Form No. 47 is Rs. 7,509, and deducting from this amount Rs. 2,133, which is the compensation on account of occupied lands taken up for forest (paragraph 26 of the report), the remainder (Rs. 5,376) should apparently be the cost of establishments.

The details given in the statement in paragraph 48 of the report are for the Forest year, whereas the cost rates per square mile specified at the foot of the statement are apparently for the Survey year. This should have been made clear.

In paragraph 58 of the report the area still remaining to be brought under systematic management in the Poona Division is stated to be 487 square miles and 594 acres, whereas in Form No. 50 it is given as 512 square miles.

In paragraph 162 of the report the yield of Hirdas in the Poona Division for 1893-94 is given as 174 khandis 13 maunds and 13 lbs, but in Form No. 58 the outturn is shown as 139 khandis 9 maunds and 27 lbs.

The figures given in paragraph 187 of the report against the items "Stones," "Thorns and Brushwood," "Anjan and other leaves (head-loads)," and "Earth (cart-loads)" do not tally with those specified in Form No. 58.

*Southern Circle.*

In paragraph 3 of the report the area finally settled in Kolába in 1893-94 is stated to be 29 square miles, whereas in Form No. 47 appended to the report it is given as 30 square miles.

The number of cases compounded by forest officers in 1893-94 is shown as 374 in paragraph 7 of the report, whereas in Form No. 52 it is given as 394.

The total Protected forest area at the end of 1893-94 in which private rights have not been inquired into, settled or recorded, shown in paragraph 27 of the report should be 2,005 square miles and 107 acres and not 1,005 square miles and 107 acres.

The total cost of forest settlement is given as Rs. 39,861 in paragraph 35 of the report, whereas it is Rs. 40,416 according to columns 14 and 15 of Form No. 47.

In paragraph 73 of the report the percentage of failures over the total number of cases disposed of (499) during the year should be 28·65 instead of 24 as given in the last column of the statement.

The total forest area in the S. Circle is 5,371 $\frac{637}{640}$ square miles as shown in the statement embodied in paragraph 14 of the report, whereas that given in Form No. 54 is 5,413 square miles.

In paragraph 142 of the report the expenditure on artificial regeneration in the Northern Division of Kánara is stated to be Rs. 218, whereas Form No. 56 gives it as Rs. 594.

In paragraph 151 of the report the expenditure on small nurseries in the Southern Division of Kánara is given as Rs. 68, but no mention of this expenditure is made in Form No. 56.

In paragraph 156 the expenditure in the Belgaum Division on artificial regeneration is stated to be Rs. 125, whereas according to Form No. 56 it is Rs. 57.

In paragraph 159 the expenditure on this account in the Ratnágiri Division is given as Rs. 61, but in Form No. 57 the figure is given as Rs. 59.

In paragraph 174 the number of bamboos extracted in the Northern, Central and Southern Divisions of Kánara during 1893-94 is given as 3,707,493, whereas Form No. 57 shows it as 3,715,503.

The yield of myrobollams in the Belgaum Division is shown as 5,814 khandis in paragraph 180 of the report, but it is given as 5,809 khandis in Form No. 58. The number of bamboos extracted during the year 1893-94 in the same Division is shown as 512,087 in paragraph 181, whereas Form No. 57 gives it as 512,146.

*Sind Circle.*

The total area of forests in the Sind Circle is given as 981 square miles and 398 acres in the statement embodied in paragraph 1 of the report, but according to

columns 6 and 8 of the statement embodied in paragraph 21 of the report it is 987 square miles and 621 acres.

The following figures given in the statement embodied in paragraph 31 of the report do not tally with those specified in Appendix B:—

| | 1892-93. | | |
|---|---|---|---|
| | Theft. | Other offences. | Compensation. |
| | | | Rs. |
| According to statement in paragraph 31 ... | 345 | 21 | 3,085 |
| According to Appendix B ... ... ... | 348 | 18 | 1,032 |

In paragraph 78 of the report the total area closed to grazing is shown as 35,079 acres (54 square miles and 519 acres), but according to Form No. 54 it is 54 square miles and 588 acres.

The total yield of timber during 1893-94 is shown as 269,146 cubic feet in paragraph 109 of the report, whereas according to Appendix C it is 116,077 cubic feet.

The realisation by sale of the farm for the removal of lac in the Hyderabad Division during 1893-94 is given as Rs. 5,424 in paragraph 110 of the report, but in Form No. 58 it is stated to be Rs. 5,438.

According to paragraph 111 of the report the grazing fees in the Naushahro Division during 1893-94 amount to Rs. 8,867, but Form No. 55 gives the figure as Rs. 8,840.

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